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DEPARTMENT OF PUBLIC WORKS
COUNTY OF KAUA`I

CONSTRUCTION DRAWINGS
FOR
POIPU ROAD MULTIMODAL IMPROVEMENTS

FEDERAL - AID PROJECT NO. STP 0520(004)
PUHI, LIHU`E, ISLAND OF KAUKA`I, HAWAI`I

PREPARED BY:



AUSTIN, TSUTSUMI & ASSOCIATES, INC.

ENGINEERS, SURVEYORS



HONOLULU, WAILUKU, HILO, HAWAI`I

| LOCATION MAP | VICINITY MAP | APPROVED |
|--|---|--|
| <div><p>NOT TO SCALE</p><p>PROJECT SITE</p><p>ISLAND OF KAUA`I</p></div> | <div><p>NOT TO SCALE</p><p>PROJECT SITE</p></div> | <div><p>DIRECTOR, PLANNING DEPARTMENT COUNTY OF KAUA`I</p><p>COUNTY ENGINEER, DEPARTMENT OF PUBLUC WORKS COUNTY OF KAUA`I</p><p>MANAGER, DEPARTMENT OF WATER COUNTY OF KAUA`I</p></div> <div><p>DATE</p><p>DATE</p><p>DATE</p></div> |

Y:\2016\16-013\ENGINEERING\DWG\C-001 CONSTRUCTION NOTES 1.dwg; June 5, 2018

NOTE FOR GENERAL CONSTRUCTION

1. ALL CONSTRUCTION WORK IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE PUBLICATIONS "HAWA'I STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2005" AND ITS AMENDMENTS AND THE "STANDARD DETAILS FOR PUBLIC WORKS, CITY AND COUNTY OF HONOLULU, AND THE COUNTIES OF KAUAI, MAUI, AND HAWA'I. THE STANDARD DETAILS ARE AVAILABLE AT THE COUNTY OF KAUAI CLERK'S OFFICE"
2. NO GRADING BETWEEN 7 P.M. TO 7 A.M. ON ANY GIVEN DAY OR ON SATURDAYS, SUNDAYS AND HOLIDAYS WITHOUT WRITTEN PERMISSION FROM THE COUNTY ENGINEER AND THE STATE DEPARTMENT OF HEALTH.
3. CONTRACTOR TO NOTIFY PUBLIC WORKS DEPARTMENT FIVE (5) BUSINESS DAYS PRIOR TO COMMENCING ANY GRADING WORK. WHEN COMPLETED AND READY FOR FINAL INSPECTION; NOTIFY PUBLIC WORKS DEPARTMENT INSPECTION SECTION.
4. CONSTRUCTION PLANS ARE VALID FOR A PERIOD OF ONE YEAR FROM THE DATE OF APPROVAL. IF CONSTRUCTION DOES NOT COMMENCE WITHIN THE ONE-YEAR TIME FROM THE DATE OF APPROVAL, THE CONSTRUCTION PLANS SHALL BE RESUBMITTED TO ALL REVIEWING AND APPROVING AGENCIES FOR REVIEW, APPROVAL AND RECERTIFICATION OF THE PLAN.
5. ALL GRADING, GRUBBING AND STOCKPILING WORK SHALL BE PERFORMED IN ACCORDANCE WITH COUNTY OF KAUAI ORDINANCE NO. 808.
6. AFTER EACH RAINFALL EVENT, THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM HIS WORK AND DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS, AND OTHER AREAS. THE COST INCURRED FOR ANY NECESSARY REMEDIAL ACTION BY THE COUNTY ENGINEER SHALL BE PAYABLE BY THE CONTRACTOR.
7. DURING CLEANING OPERATIONS, THE CONTRACTOR SHALL SUPPLY A WATER TRUCK FOR DUST CONTROL PURPOSES UNTIL THE VEGETATION HAS RE-ESTABLISHED ITSELF. EXCESS WATER, INCLUDING SILT AND DIRT, SHALL NOT BE ALLOWED TO RUN-OFF THE PROPERTY.
8. BENCHMARKS THAT ARE DISTURBED OR DESTROYED SHALL BE RESTORED UNDER A LICENSED LAND SURVEYOR'S DIRECTION. COPIES OF FIELD NOTES, DESCRIPTIONS AND NEW VALUES OF THE NEW BENCHMARK SHALL BE SENT TO THE DEPARTMENT OF PUBLIC WORKS SURVEY SECTION FOR REVIEW AND APPROVAL PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OVERTIME AND/OR NIGHT WORK PAYMENTS FOR COUNTY'S STAFF AND INSPECTION PERSONNEL INCLUDING CONSULTANTS, WHEN THE CONTRACT REQUIRES OVERTIME OR NIGHT WORK TO BE PERFORMED, OR DIRECTS THE CONTRACTOR TO WORK ADDITIONAL SHIFTS OR OVERTIME FOR COUNTY'S CONVENIENCE.
10. BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE EMPLOYED AT ALL TIMES TO THE MAXIMUM EXTENT PRACTICABLE TO PREVENT DAMAGE BY SEDIMENTATION, EROSION OR DUST TO STREAMS, WATERCOURSES, NATURAL AREAS AND THE PROPERTY OF OTHERS.
11. SURVEYS SHALL BE DONE UNDER THE SUPERVISION OF A LAND SURVEYOR LICENSED IN THE STATE OF HAWA'I.
12. IF SYSTEM CONDITIONS REQUIRE NON-EMERGENCY NIGHT TIME WORK DURING THE AUTUMN SEABIRD FALL SEASON (SEPTEMBER 15 THROUGH DECEMBER 15), USE OF LIGHTING SHALL BE RESTRICTED BETWEEN 9:00 P.M. TO 4:30 A.M. IF LIGHTING OF THE WORK AREA IS REQUIRED IN SUCH SITUATION, ALL LIGHTS SHALL BE SHIELDED (MINIMUM LIGHT SPILL TOWARDS THE SKY) AND DIRECTED DOWNWARDS TO THE MAXIMUM EXTENT PRACTICABLE. MINIMUM REQUIREMENTS FOR LIGHTING BY HIOSH AND OSHA SHALL BE PROVIDED AND ASSURED BY THE CONTRACTOR. THE CONTRACTOR SHALL TRAIN ALL EMPLOYEES WORKING AT NIGHT (RECORDS RETAINED BY THE CONTRACTOR) ON HOW TO HANDLE ANY RETRIEVED DOWNED BIRDS AND SHALL HAVE APPROPRIATE EQUIPMENT AS APPROVED BY SAVE OUR SHEARWATERS (SOS) ON SITE TO HOLD AND TRANSPORT ANY RETRIEVED BIRDS TO A SOS FACILITY. THIS REQUIREMENT DOES NOT ALLOW LIGHTING AS MAY BE RESTRICTED BY OTHER GOVERNMENT AGENCIES.
13. PRIOR TO STARTING ANY EXCAVATION ACTIVITIES, THE CONTRACTOR SHALL CONTACT THE HAWA'I ONE CALL CENTER AT 1-866-423-7287

NOTES FOR CONSTRUCTION WITHIN COUNTY RIGHT-OF-WAY

1. ALL DAMAGED PAVEMENT SHALL BE RESTORED TO ITS ORIGINAL CONDITION IN ACCORDANCE WITH COUNTY OF KAUAI, "HAWA'I STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2005)" AND ITS AMENDMENTS AND THE "STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1984", AS AMENDED BY THE DEPARTMENT FOR PUBLIC WORKS, CITY AND COUNTY OF HONOLULU, AND THE COUNTIES FOR KAUAI, MAUI AND HAWA'I, WITH 2" MINIMUM HOT MIXED ASPHALT CONCRETE PAVEMENT (STATE DESIGN MIX V) AND 8" MINIMUM BASE COURSE.
2. THE CONTRACTOR SHALL PROVIDE, INSTALL MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, MARKERS, CONES AND OTHER PROTECTIVE FACILITIES AND SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION AND FOR THE CONVENIENCE AND SAFETY OF THE PUBLIC TRAFFIC. ALL SUCH PROTECTIVE FACILITIES AND PRECAUTIONS TO BE TAKEN SHALL CONFORM WITH THE RULES AND REGULATIONS GOVERNING THE USE OF TRAFFIC CONTROL DEVICES AT WORK SITES ON OR ADJACENT TO PUBLIC STREETS AND HIGHWAYS ADOPTED BY THE HIGHWAY SAFETY COORDINATOR AND U.S. FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS DATED 2009 AND ITS AMENDMENTS.
3. THE CONTRACTOR SHALL, WHENEVER NECESSARY, PROPERLY SHEET AND BRACE ALL EXCAVATIONS TO RENDER IT SECURE AND SHALL REMOVE ALL SUCH SHEETING AND BRACING BEFORE COMPLETION OF THE BACKFILL FOR WATER MAINS. THE MINIMUM COVER REQUIREMENTS (FROM TOP OF PIPE TO FINISHED GRADE OVER PIPE) IS THREE (3) FEET.
4.

A. A PERMIT SHALL BE OBTAINED BY THE CONTRACTOR FROM THE DEPARTMENT OF PUBLIC WORKS, COUNTY OF KAUAI BEFORE WORK ON A PUBLIC STREET OR HIGHWAY MAY BEGIN. PERMIT FEES SHALL BE AT THE CONTRACTOR'S EXPENSE.

B. DRIVEWAYS SHALL BE KEPT OPEN UNLESS OWNERS OF THE ABUTTING LOTS USING THESE RIGHT-OF-WAY ARE OTHERWISE PROVIDED FOR SATISFACTORILY.

C. ALL WORK INCLUDING REPAIR OF DAMAGED PAVEMENT AND SHOULDERS SHALL BE INSPECTED AND APPROVED BY THE DEPARTMENT OF PUBLIC WORKS. ALL UNAPPROVED WORK SHALL BE CONSIDERED UNACCEPTABLE AND SHALL BE REWORKED AND CORRECTED AS DIRECTED BY THE DEPARTMENT OF PUBLIC WORKS, AT THE CONTRACTOR'S EXPENSE.

D. DAMAGED SHOULDERS SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITION.

E. WORK ON A PUBLIC STREET AREA MY BE PERFORMED ONLY BETWEEN THE HOURS OF 8:00 A.M. TO 3:30 P.M. MONDAY THROUGH FRIDAY, EXCEPT ON HOLIDAYS RECOGNIZED BY THE COUNTY OF KAUAI, UNLESS OTHERWISE PERMITTED IN WRITING BY THE COUNTY ENGINEER.

F. DURING NON-WORKING HOURS, ALL TRENCHED SHALL BE COVERED WITH A SAFE NON-SKID BRIDGING MATERIAL AND ALL LANES SHALL BE OPENED TO PUBLIC VEHICULAR AND PEDESTRIAN TRAFFIC.

G. NO MATERIAL AND/OR EQUIPMENT SHALL BE STOCKPILED OR OTHERWISE STORED WITHIN COUNTY RIGHT-OF-WAY EXCEPT AT LOCATIONS DESIGNATED IN WRITING AND APPROVED BY THE COUNTY ENGINEER.

H. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SO AS TO OFFER THE LEAST POSSIBLE OBSTRUCTIONS AND INCONVENIENCE TO THE PUBLIC AND HE SHALL HAVE UNDER CONSTRUCTION NO GREATER LENGTH OR AMOUNT OF WORK THAT HE CAN EXECUTE PROPERLY WITH DUE REGARD TO THE RIGHTS OF THE PUBLIC.

I. ALL EXISTING DRAINAGE FLOW CONDITIONS SHALL BE MAINTAINED.
5. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A GEOTECHNICAL ENGINEER FOR QUALITY CONTROL. CERTIFICATION FROM THE GEOTECHNICAL ENGINEER SHALL BE SUBMITTED TO THE DEPARTMENT OF PUBLIC WORKS AT THE COMPLETION OF THE CONSTRUCTION WORK. THE GEOTECHNICAL ENGINEER SHALL CERTIFY THAT THE CONSTRUCTION WORK MEETS "STANDARD SPECIFICATIONS". THE GEOTECHNICAL ENGINEER SHALL ALSO SUBMIT TEST RESULTS AS REQUESTED BY THE DEPARTMENT OF PUBLIC WORKS.
6. THE CONTRACTOR SHALL HOLD A PRECONSTRUCTION MEETING WITH THE CONSTRUCTION – DESIGN SECTIONS OF THE DEPARTMENT OF PUBLIC WORKS BEFORE COMMENCING ANY WORK.

7. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION TO PRESERVE BENCHMARKS (SURVEY MONUMENTS) WHENEVER THE CENTER OF A SURVEY MONUMENT IS LESS THAN THREE (3) FEET FROM THE EDGE OF CONSTRUCTION. THE CONTRACTOR SHALL RETAIN A LICENSED SURVEYOR TO REFERENCE THE LOCATION OF SAID SURVEY MONUMENT.
8. BENCHMARKS THAT ARE DISTURBED OR DESTROYED SHALL BE RESTORED UNDER A LICENSED LAND SURVEYOR'S DIRECTION. COPIES OF FIELD NOTES, DESCRIPTIONS AND NEW VALUES OF THE NEW BENCHMARK SHALL BE SENT TO THE DEPARTMENT OF PUBLIC WORKS SURVEY SECTION FOR REVIEW AND APPROVAL PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OVERTIME OR NIGHT WORK PAYMENTS FOR COUNTY'S STAFF AND INSPECTION PERSONNEL INCLUDING CONSULTANTS WHEN THE CONTRACT REQUIRES OVERTIME OR NIGHT WORK TO BE PERFORMED, OR DIRECTS THE CONTRACTOR TO WORK ADDITIONAL SHIFTS OR OVERTIME FOR COUNTY'S CONVENIENCE.
10. IF SYSTEM CONDITIONS REQUIRE NON-EMERGENCY NIGHTTIME WORK DURING THE AUTUMN SEABIRD FALL SEASON (SEPTEMBER 15 THROUGH DECEMBER 15), USE OF LIGHTING SHALL BE RESTRICTED BETWEEN 9:00 P.M. TO 4:30 A.M. IF LIGHTING OF THE WORK AREA IS REQUIRED IN SUCH SITUATION, ALL LIGHTS SHALL BE SHIELDED (MINIMUM LIGHT SPILL TOWARDS THE SKY) AND DIRECTED DOWNWARDS TO THE MAXIMUM EXTENT PRACTICABLE. MINIMUM REQUIREMENTS FOR LIGHTING BY HIOSH AND OSHA SHALL BE PROVIDED AND ASSURED BY THE CONTRACTOR. THE CONTRACTOR SHALL TRAIN ALL EMPLOYEES WORKING AT NIGHT (RECORDS RETAINED BY THE CONTRACTOR) IN HOW TO HANDLE ANY RETRIEVED DOWNED BIRDS AND SHALL HAVE APPROPRIATE EQUIPMENT AS APPROVED BY SAVE OUR SHEARWATERS (SOS) ON SITE TO HOLD AND TRANSPORT ANY RETRIEVED BIRDS TO AN SOS FACILITY. THIS REQUIREMENT DOES NOT ALLOW LIGHTING AS MAY BE RESTRICTED BY OTHER GOVERNMENT AGENCIES.

PUBLIC HEALTH, SAFETY AND CONVENIENCE

1. THE CONTRACTOR SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS REQUIRED FOR THE PROTECTION OF PUBLIC HEALTH AND SAFETY AND ENVIRONMENTAL QUALITY.
2. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AND ITS SURROUNDING AREAS FREE FROM THE DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH. THE COUNTY OF KAUAI MAY REQUIRE SUPPLEMENTARY MEASURES AS NECESSARY.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANING AND REMOVAL OF ALL SILT AND DEBRIS GENERATED FROM HIS WORK AND DEPOSITED AND ACCUMULATED WITHIN DOWNSTREAM WATERWAYS, DITCHES AND DRAIN PIPES AND ON PUBLIC AND PRIVATE ROADWAYS. THE CONTRACTOR AGREES TO REIMBURSE THE COUNTY OF KAUAI FOR ALL COSTS EXPENDED IN PERFORMANCE OF THE ABOVE WORK IF REQUIRED FOR PUBLIC HEALTH AND SAFETY, OR MADE NECESSARY BY NON-PERFORMANCE BY THE CONTRACTOR.
4. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, MARKERS, CONES AND OTHER PROTECTIVE FACILITIES AND SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION, CONVENIENCE AND SAFETY OF THE PUBLIC.
5. THE CONTRACTOR SHALL SUBMIT A NOISE POLLUTION CONTROL PLAN WHEN APPLYING FOR A CONSTRUCTION PERMIT.

WATER POLLUTION AND EROSION CONTROL NOTES

1. GENERAL:

A. THE CONTRACTOR IS REMINDED OF THE REQUIREMENTS OF SECTION 209-WATER POLLUTION AND EROSION CONTROL AND SECTION 620-DUST CONTROL IN THE "HAWA'I STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2005," AS AMENDED. SECTION 209 DESCRIBES BUT IS NO LIMITED TO: SUBMITTAL REQUIREMENTS; SCHEDULING OF A WATER POLLUTION AND EROSION CONTROL CONFERENCE WITH THE COUNTY ENGINEER; CONSTRUCTION REQUIREMENTS; METHOD OF MEASUREMENT; AND BASIS OF PAYMENT. NO WORK SHALL COMMENCE WITHOUT A BMP PLAN APPROVED BY THE DEPARTMENT OF HEALTH.

- B. THE CONTRACTOR SHALL FOLLOW THE GUIDELINES IN THE "INTERIM BEST MANAGEMENT PRACTICES MANUAL FOR CONSTRUCTION SITE FOR COUNTY OF KAUAI" APRIL 2004 IN DEVELOPING, INSTALLING AND MAINTAINING THE BEST MANAGEMENT PRACTICES (BMP'S) FOR THE PROJECT. THE CONTRACTOR MAY SUBMIT ALTERNATE METHODS TO THE COUNTY FOR ACCEPTANCE.
- C. THE CONTACTOR SHALL KEEP A COPY OF THE APPROVED BMP PLAN, NOI, ETC. ON THE PROJECT SITE. THE BMP PLAN SHALL BE UPDATED TO REFLECT ANY CHANGES MADE DURING THE COURSE OF CONSTRUCTION FOR THE DURATION OF THE PROJECT.
- D. THE COUNTY ENGINEER MAY ASSESS LIQUIDATED DAMAGES OF UP TO \$27,500 FOR NONCOMPLIANCE OF EACH BMP REQUIREMENT AND EACH REQUIREMENT STATED IN SECTION 209, FOR EVERYDAY OF NONCOMPLIANCE. THERE IS NO MAXIMUM LIMIT ON THE AMOUNT ASSESSED PER DAY.
- E. THE COUNTY ENGINEER MAY DEDUCT THE COST FROM THE PROGRESS PAYMENT FOR ALL CITATIONS RECEIVED BY THE DEPARTMENT FOR NON-COMPLIANCE, OR THE CONTRACTOR/OWNER SHALL REIMBURSE THE STATE AND/OR COUNTY FOR THE FULL AMOUNT OF THE OUTSTANDING COST INCURRED BY THE STATE AND/OR COUNTY.

2. WASTE DISPOSAL:

- A. WASTE MATERIALS: ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER THAT DOES NOT LEAK. THE DUMPSTER SHALL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER SHALL BE EMPTIED A MINIMUM OF TWICE PER WEEK OR AS OFTEN AS IS DEEMED NECESSARY. NO CONSTRUCTION WASTE MATERIAL SHALL BE BURIED ONSITE. THE CONTRACTOR'S SUPERVISORY PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES SHALL BE POSTED IN THE OFFICE TRAILER AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.
- B. HAZARDOUS WASTE: ALL HAZARDOUS WASTE MATERIAL SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATIONS OR BY THE MANUFACTURER. THE CONTRACTOR'S SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES AND SHALL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES FOR FOLLOWED.
- C. SANITARY WASTE: ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK, OR AS REQUIRED.
3. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:

A. ALL CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE A EACH WEEK AND WITHIN 24 HOURS FOLLOWING ANY RAINFALL EVENT OF 0.5 INCHES OR GREATER.

B. ALL MEASURES SHALL BE MAINTAINED IN GOOD WORKING ORDER. IF REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS AFTER THE INSPECTION.

C. BUILT UP SEDIMENT SHALL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.

D. SILT SCREEN OF FENCE SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO VERY THAT THE FABRIC FENCE IS SECURELY ATTACHED TO THE FENCE POST OR CONCRETE SLAB AND TO VERIFY THAT THE FENCE POST ARE FIRMLY IN THE GROUND

E. TEMPORARY AND PERMANENT SEEDING AND PLANTING SHALL BE INSPECTED FOR BARE SPOTS, WASH OUTS AND HEALTHY GROWTH.

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| KAUAI | HAW. | STP-5010(002) | 2018 | XX | XX |

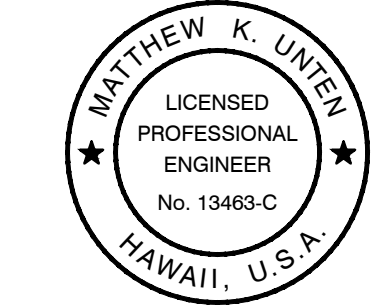
- F. THE CONTRACTOR SHALL SUBMIT TO THE COUNTY ENGINEER A MAINTENANCE INSPECTION REPORT PROMPTLY AFTER EACH WEEKLY INSPECTION.
- G. THE CONTRACTOR SHALL SELECT A MINIMUM OF THREE PERSONNEL WHO SHALL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.
- H. PERSONNEL SELECTED FOR THE INSPECTION AND MAINTENANCE RESPONSIBILITIES SHALL RECEIVE TRAINING FROM THE CONTRACTOR. THEY SHALL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.
- I. ALL SLOPES AND EXPOSED AREAS SHALL BE GRASSED AS FINAL GRADES HAVE BEEN ESTABLISHED. GRADING TO FINAL GRADE SHALL BE CONTINUOUS, AND ANY AREA IN WHICH WORK HAS BEEN INTERRUPTED OR DELAYED OR EXPOSED FOR MORE THAN 15 DAYS SHALL BE GRASSED IN ORDER TO PREVENT DUST EMISSION, EROSION AND SILT RUNOFF. AREAS WITH IMPORTED SOILS SHALL BE GRASSED NOT MORE THAN 5 WORKING DAYS AFTER THE FINAL GRADES HAVE BEEN ESTABLISHED.
- J. TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN-PLACE AND ESTABLISHED.

4. GOOD HOUSE KEEPING BEST MANAGEMENT PRACTICES:

- A. MATERIALS POLLUTION PREVENTION PLAN.

a. APPLICABLE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE PRESENT ONSITE DURING CONSTRUCTION. OTHER MATERIALS AND SUBSTANCES NOT LISTED BELOW SHALL BE ADDED TO THE INVENTORY OF THE CONSTRUCTION CONTRACTOR'S SITE-SPECIFIC BMP PLAN.
- b. MATERIAL MANAGEMENT SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF. AN EFFORT SHALL BE MADE TO STORE ONLY ENOUGH PRODUCT AS IS REQUIRED TO DO THE JOB.
- c. ALL MATERIALS STORED ONSITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND IF POSSIBLE UNDER A ROOF OR OTHER ENCLOSURE.
- d. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURE'S LABEL.
- e. SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
- f. A PRODUCT SHALL BE USED UP COMPLETELY BEFORE DISPOSING OF THE CONTAINER.
- g. MANUFACTURER'S RECOMMENDATION FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED.

| | |
|---|---|
| CONCRETE DETERGENTS PAINTS (ENAMEL & LATEX) METAL STUDS TAR MASONRY | FERTILIZERS PETROLEUM BASED PRODUCTS CLEANING SOLVENTS WOOD BLOCK |
|---|---|



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 16-115-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2018

DWG. NO. **C-001**
SHEET **XX** OF **XX**

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

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|----------|------|-------|---------|----------|--|
| | | | | | |
| REVISION | DATE | BRIEF | MADE BY | APPROVED | |

Austin Tsutsumi
& ASSOCIATES, INC.
Engineers & Surveyors

PO'IPU ROAD MULTIMODAL IMPROVEMENTS
FEDERAL-AID PROJECT NO. STP-5010(2)
PO'IPU, KOLOA, KAUAI, HAWA'I

CONSTRUCTION NOTES 1

DESIGNED BY: **KU, KA** DRAWN BY: **DO** CHECKED BY: **KU**

APPROVED SUBMITTED BY

DATE FIRM MEMBER DATE

DATE: XXXXXXXXXXXXX

| FILE | POCKET | FOLDER | NO. |
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| | | | |

Y:\2016\16-013\ENGINEERING\DWG\16-002 CONSTRUCTION NOTES 2.dwg - June 5, 2018

WATER POLLUTION AND EROSION CONTROL NOTES CONT'D.

- h. THE CONTRACTOR SHALL CONDUCT A DAILY INSPECTION TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.
- B. HAZARDOUS MATERIAL POLLUTION PREVENTION PLAN:
- a. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
- b. ORIGINAL LABELS AND MATERIALS SAFETY DATA SHEETS (MSDS) SHALL BE RETAINED AND MADE AVAILABLE TO THE COUNTY ENGINEER UPON REQUEST.
- c. SURPLUS PRODUCTS SHALL BE DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR LOCAL AND STATE RECOMMENDED REGULATIONS.
- C. ONSITE AND OFFSITE PRODUCTS SPECIFIC PLANS:

THE FOLLOWING PRODUCT SPECIFIC PRACTICES SHALL BE FOLLOWED ONSITE:

- a. PETROLEUM BASED PRODUCTS: ALL ONSITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATION.
- b. FERTILIZERS: APPLY FERTILIZED USED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, WORK FERTILIZER INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE SHALL BE IN A COVERED SHED.
- c. PAINTS: SEAL AND STORE ALL CONTAINER WHEN NOT REQUIRED FOR USE. DO NOT DISCHARGE EXCESS PAINT TO THE ROADWAY DRAINAGE SYSTEM. DISPOSE PROPERLY ACCORDING TO MANUFACTURER'S INSTRUCTION OR STATE AND LOCAL REGULATIONS.
- d. CONCRETE TRUCKS: WASH OUT OR DISCHARGE CONCRETE TRUCK DRUM WASH WATER ONLY AT A DESIGNATED SITE. DO NOT DISCHARGE WATER IN ROADWAY DRAINAGE SYSTEM OR WATERS OF THE UNITED STATES. CONTACT DRINKING WATER BRANCH, DEPARTMENT OF HEALTH AT (808) 586-4258 TO RECEIVE PERMISSION TO DESIGNATE A DISPOSAL SITE. CLEAN DISPOSAL SITE AS REQUIRED OR AS REQUESTED BY THE OWNER'S REPRESENTATIVE.

D. SPILL CONTROL PLAN:

- a. POST A SPILL PREVENTION PLAN TO INCLUDE MEASURES TO PREVENT AND CLEAN UP EACH SPILLWAY.
- b. THE CONTRACTOR SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. DESIGNATE AT LEAST THREE SITE PERSONNEL WHO SHALL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS SHALL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. POST THE NAMES OF RESPONSIBLE SPILL PERSONAL IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ONSITE.
- c. CLEARLY POST MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP. MAKE SITE PERSONNEL AWARE OF THE PROCEDURES AND THE LOCATION OF INFORMATION AND CLEANUP SUPPLIES.
- d. KEEP MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP IN THE MATERIAL STORAGE AREA ONSITE.
- e. CLEAN UP ALL SPILL IMMEDIATELY AFTER DISCOVERY.
- f. KEEP THE SPILL AREA WELL VENTILATED. PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH HAZARDOUS SUBSTANCE.
- g. REPORT SPILLS OF TOXIC HAZARDOUS MATERIAL TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.

5. NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS:

- A. THE CONTRACTOR SHALL APPLY FOR, OBTAIN AND COMPLY WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPES) REQUIREMENTS FOR KAUAI DISTRICT PERMIT PROJECTS. THIS IS AVAILABLE AT THE KAUAI DISTRICT OFFICE AT 3040 UMI STREET, SUITE 205. DUE TO POTENTIAL COST IMPACTS, THE CONTRACTOR NEEDS TO BE AWARE OF THE REQUIREMENTS.

- B. THE CONTRACTOR SHALL OBTAIN AND COMPLY WITH NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS FOR ALL PROJECTS WHICH WILL DISTURB ONE (1) ACRE OR MORE OF LAND. THE CONTRACTOR SHALL NOT START CONSTRUCTION UNTIL NOTICE OF GENERAL PERMIT COVERAGE (NGPC) IS RECEIVED FROM THE DEPARTMENT OF HEALTH, STATE OF HAWAI'I AND HAS SATISFIED ANY OTHER APPLICABLE REQUIREMENTS OF THE NPDES PERMIT PROGRAM.
- C. THE CONTRACTOR SHALL COMPLETE AND SUBMIT A CONTRACTOR'S CERTIFICATION OF NPDES COMPLIANCE, INCLUDING COMPLETION OF THE BEST MANAGEMENT PRACTICE (BMP) CHECKLIST AND SUBMITTAL OF A WRITTEN BMP PLAN AND DRAWINGS, PRIOR TO ISSUANCE OF THE PERMIT TO PERFORM WORK UPON COUNTY

6. SITE SPECIFIC BMP REQUIREMENTS:

EACH BMP BELOW IS REFERENCED TO THE CORRESPONDING SECTION OF THE CURRENT HDOT CONSTRUCTION BEST MANAGEMENT PRACTICES FIELD MANUAL AND APPROPRIATE SUPPLEMENTAL SHEETS. THE MANUAL MAY BE OBTAINED FROM THE HDOT STATEWIDE STORMWATER MANAGEMENT PROGRAM WEBSITE AT [HTTP://WWW.STORMWATERHAWAII.COM/RESOURCES](http://www.stormwaterhawaii.com/resources) UNDER CONSTRUCTION BEST MANAGEMENT PRACTICES FIELD MANUAL. SUPPLEMENTAL BMP SHEETS ARE LOCATED AT [HTTP://SOTRMWATERHAWAII.COM/CONTRACTORS/CONTRACTORS_BMPMANUAL.ASPX](http://sotrmwaterhawaii.com/contractors/contractors_bmpmanual.aspx) UNDER CONCRETE CURING AND IRRIGATION WATER.

THE REQUIREMENTS FOR WATER POLLUTION, DUST, AND EROSION CONTROL SUBMITTALS ARE INCLUDED IN SECTION 209 OF THE HAWAII STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2005 AND APPLICABLE SPECIAL PROVISIONS. A LIST OF POLLUTANT SOURCES AND CORRESPONDING BMP USED TO MITIGATE THE POLLUTANTS. ARE INCLUDED IN SECTION 209 OF THE SPECIAL PROVISIONS UNDER APPENDIX A.

FOLLOW THE REQUIREMENTS BELOW:

- A. PROTECT ALL DRAINAGE INLETS RECEIVING RUNOFF FROM DISTURBED AREAS (SC-2).
- B. CONTAIN ON-SITE RUNOFF USING PERIMETER SEDIMENT CONTROLS
- a. SC-1 SILT FENCE
- b. SC-5 VEGETATED FILTER STRIPS AND BUFFERS
- c. C-8 COMPOST FILTER BERM
- d. SC-13 SANDBAG BARRIER
- e. SC-14 BRUSH OR ROCK FILTER
- C. CONTROL OFFSITE RUNOFF FROM ENTERING CONSTRUCTION AREA
- a. EC-8 RUN-ON DIVERSION
- b. SC-6 EARTH DIKE
- c. SC-7 TEMPORARY DRAINS AND SWALES
- D. INCORPORATE APPLICABLE SITE MANAGEMENT BMP
- a. SM-1 EMPLOYEE TRAINING
- b. SM-2 MATERIAL DELIVERY AND STORAGE
- c. SM-3 MATERIAL USE
- d. SM-4 PROTECTION OF STOCKPILES
- e. SM-6 SOLID WASTE MANAGEMENT
- f. SM-7 SANITARY/SEPTIC WASTE MANAGEMENT
- g. SM-9 HAZARDOUS WASTE MANAGEMENT
- h. SM-10 SPILL PREVENTION AND CONTROL
- i. SM-11 VEHICLE AND EQUIPMENT CLEANING
- j. SM-12 VEHICLE AND EQUIPMENT MAINTENANCE
- k. SM-13 VEHICLE AND EQUIPMENT REFUELING
- l. SM-14 SCHEDULING
- m. SM-15 LOCATION OR POTENTIAL SOURCES OF SEDIMENT
- n. SM-16 PRESERVATION OF EXISTING VEGETATION
- o. SM-18 DUST CONTROL

- E. CONTAIN POLLUTANTS WITHIN THE CONSTRUCTION STAGING/STORAGE AREA BMP WITH APPLICABLE PERIMETER SEDIMENT CONTROLS AND SITE MANAGEMENT BMP. INCLUDE A STABILIZED CONSTRUCTION ENTRANCE/EXIT (EC-2) FOR ALL AREAS WHICH EXIT ONTO A PAVED STREET. RESTRICT VEHICLE ACCESS TO THESE POINTS.

- F. MANAGE CONCRETE WASTE INCLUDING INSTALLING A CONCRETE WASHOUT AREA (SM-5) AND PROPERLY DISPOSING OF CONCRETE CURING WATER (CALIFORNIA STORMWATER BMP HANDBOOK NS-12 CONCRETE CURING).

- G. REMOVE SAW CUT SLURRY AND HYDRO-DEMOLITION WATER FROM THE SITE BY VACUUMING. PROVIDE STORM DRAIN PROTECTION AND/OR PERIMETER SEDIMENT CONTROLS DURING SAW CUTTING AND HYDRO-DEMOLITION WORK.

ENVIRONMENTAL CONTROL NOTES FOR GRADING

1. IN ACCORDANCE WITH CHAPTER 11-60.1, AIR POLLUTION CONTROL, TITLE 11, HAWAI'I ADMINISTRATIVE RULES, THE PROPERTY OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR ENSURING THAT EFFECTIVE CONTROL MEASURES ARE PROVIDED TO MINIMIZE OR PREVENT ANY VISIBLE DUST EMISSION CAUSED BY THE CONSTRUCTION WORK FROM IMPACTING THE SURROUNDING AREAS INCLUDING THE OFF-SITE ROADWAYS USED TO ENTER/EXIT THE PROJECT. THESE MEASURES INCLUDE BUT ARE NOT LIMITED TO THE USE OF WATER WAGONS, SPRINKLER SYSTEM, DUST FENCES, ETC.
2. IN ACCORDANCE WITH CHAPTER 11-55, WATER POLLUTION CONTROL AND CHAPTER 11-54, WATER QUALITY STANDARDS, TITLE 11, HAWAI'I ADMINISTRATIVE RULES, THE PROPERTY OWNER/DEVELOPER SHALL RESPONSIBLE FOR ENSURING THAT THE BEST MANAGEMENT PRACTICES (BMP) TO MINIMIZE OR PREVENT THE DISCHARGE OF SEDIMENTS, DEBRIS AND OTHER WATER POLLUTANT INTO STATE WATERS IS PROVIDED AT ALL TIMES.
3. IN ACCORDANCE WITH CHAPTER 11-58, SOLID WASTE MANAGEMENT CONTROL, TITLE 11, HAWAI'I ADMINISTRATIVE RULES, THE PROPERTY OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR ENSURING THAT GRUB MATERIAL, DEMOLITION WASTE AND CONSTRUCTION WASTE GENERATED BY THE PROJECT ARE DISPOSED OF IN A MANNER OR AT A SITE APPROVED BY THE STATE DEPARTMENT OF HEALTH. DISPOSAL OF ANY OF THESE WASTES BY BURNING IS PROHIBITED.
4. THE PROPERTY OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL APPLICABLE PERMITS FROM THE DEPARTMENT OF HEALTH INCLUDING BUT NOT LIMITED TO NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES), NOTICE OF INTENT AND GENERAL PERMIT FOR STORM WATER, HYDROSTATIC TEST AND DEWATERING DISCHARGES PRIOR TO COMMENCING CONSTRUCTION. NPDES PERMIT SHALL BE REQUIRED PRIOR TO GRADING OR GRUBBING WORK OVER AN AREA OF ONE ACRE OR MORE.
5. AFTER EACH RAINFALL EVENT, THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM THIS WORK AND DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS AND OTHER AREAS. THE COST INCURRED FOR ANY NECESSARY REMEDIAL ACTION BY THE COUNTY ENGINEER SHALL BE PAYABLE BY THE CONTRACTOR.
6. BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE EMPLOYED AT ALL TIMES TO THE MAXIMUM EXTENT PRACTICABLE TO PREVENT DAMAGE BY SEDIMENTATION, EROSION OR DUST TO STREAMS, WATER COURSES, NATURAL AREAS AND THE ROPERTY OF OTHERS.
7. THE CONTRACTOR SHALL OBTAIN AND COMPLY WITH NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS FOR ALL PROJECTS WHICH WILL DISTURB ONE (1) ACRE OR MORE OF LAND. THE CONTRACTOR SHALL NOT START CONSTRUCTION UNTIL NOTICE OF GENERAL PERMIT COVERAGE (NGPC) IS RECEIVED FROM THE DEPARTMENT OF HEALTH, STATE OF HAWAI'I AND HAS SATISFIED ANY OTHER PERMITTING REQUIREMENTS OF THE NPDES PERMIT PROGRAM.
8. IN ACCORDANCE WITH CHAPTER 11-46, COMMUNITY NOISE, HAWAI'I ADMINISTRATIVE RULES, THE CONTRACTOR AND THE PROPERTY OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR PROVIDING EFFECTIVE CONTROL MEASURES TO MINIMIZE OR PREVENT CONSTRUCTION RELATED NOISE FROM IMPACTING THE RESIDENTS IN THE IMMEDIATE AREA. IF REQUIRED, NOISE REDUCTION MEASURES SHALL BE IMPLEMENTED BY THE CONTRACTOR DURING THECONSTRUCTION WORK.
9. THE PROPERTY MAY HARBOR RODENTS WHICH WILL BE DISPERSED TO THE SURROUNDING AREAS WHEN THE SITE IS CLEARED. IN ACCORDANCE WITH CHAPTER 11-26, ENTITLED VECTOR CONTROL OF TITLE 11, HAR, THE APPLICANT SHALL ASCERTAIN THE PRESENCE OR ABSENCE OF RODENTS ON THE PROPERTY. SHOULD THE PRESENCE OF RODENTS BE ETERMINED, THE APPLICANT SHALL ERADICATE THE RODENTS PRIOR TO CLEARING THE SITE.
10. A COPY OF THE PLANS, CONSTRUCTION SCHEDULE AND/OR WRITTEN MEASURES THAT IS REQUIRED TO BE SUBMITTED BY THE CONTRACTOR (DUST CONTROL MEASURES/PLANS) SHOULD ALSO BE SENT TO THE DEPARTMENT OF HEALTH FOR MONITORING PURPOSES.

ENVIRONMENTAL NOTES

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5. AFTER EACH RAINFALL EVENT, THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM THIS WORK AND DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS AND OTHER AREAS. THE COST INCURRED FOR ANY NECESSARY REMEDIAL ACTION BY THE COUNTY ENGINEER SHALL BE PAYABLE BY THE CONTRACTOR.
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10. A COPY OF THE PLANS, CONSTRUCTION SCHEDULE AND/OR WRITTEN MEASURES THAT IS REQUIRED TO BE SUBMITTED BY THE CONTRACTOR (DUST CONTROL MEASURES/PLANS) SHOULD ALSO BE SENT TO THE DEPARTMENT OF HEALTH FOR MONITORING PURPOSES.

GRADING NOTES

TEMPORARY DUST CONTROL MEASURES FOR GRADING

1. THE GRADED OR PROJECT SITE THAT IS CLEARED OF VEGETATION SHALL BE KEPT DAMP WITH WATER CONTINUOUSLY FOR SEVEN (7) DAYS A WEEK. AT THE END OF EACH DAY, THE SITE SHALL BE SUFFICIENTLY DAMPENED WITH WATER ON A CONTINUAL BASIS SO THAT THE SITE WILL REMAIN MOISTENED DURING THE NIGHT.
2. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SO THAT EXCAVATION, EMBANKMENT, AND IMPORTED MATERIAL SHALL BE DAMPENED WITH WATER ON A CONTINUAL BASIS TO PREVENT DUST PROBLEMS.

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| KAUAI | HAW. | STP-5010(002) | 2018 | XX | XX |

3. IN APPLYING FOR A GRADING PERMIT, THE CONTRACTOR SHALL SUBMIT PLANS, SCHEDULES AND/OR WRITTEN MEASURES WHICH PROVIDES FOR DUST CONTROL. THE DUST CONTROL MEASURES SHALL CONTAIN POSITIVE STATEMENTS WHICH REQUIRE ACTIONS OR WORK THAT PREVENT DUST PROBLEMS. NO PERMITS WILL BE ISSUED UNLESS THE COUNTY IS ASSURED THAT DUST PROBLEMS WILL BE MINIMIZED.

TEMPORARY EROSION CONTROL MEASURES FOR GRADING

1. TEMPORARY VEGETATIVE COVER SHALL BE PLANTED WITHIN A PERIOD OF 30 CALENDAR DAYS AFTER THE SITE HAS BEEN GRADED OR BARED OF VEGETATION OR IF THE SITE WILL BE SUSPENDED FOR MORE THAN 30 CALENDAR DAYS.
2. TEMPORARY VEGETATIVE COVER SHALL CONSIST OF 40 LBS. COMMON RYE GRASS SEED PER ACRE, 400 LBS. PER ACRE 10-10-10 OR EQUIVALENT FERTILIZER WORKED INTO THE SEED BED BEFORE PLANTING. TEMPORARY SPRINKLER SYSTEM IS TO BE INSTALLED CONCURRENTLY WITH ALL PLANTINGS AND MAINTENANCE OF GRASS SHALL CONFORM TO THE "HAWAI'I STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2005" AND ITS AMENDMENTS.

PERMANENT EROSION CONTROL MEASURES FOR GRADING



1. THE CONTRACTOR SHALL GRASS THE ENTIRE PROJECT SITE, EXCEPT PAVED AREAS WITH BERMUDA GRASS SPRIGS. THE GRASS SHALL BE PLANTED, FERTILIZED, AND MAINTAINED IN ACCORDANCE WITH THE "HAWAI'I STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2005" AND ITS AMENDMENTS.
2. THE CONTRACTOR SHALL GRASS ALL EXPOSED AREAS THAT HAVE BEEN CONSTRUCTED TO FINAL GRADES WITHIN A PERIOD OF 30 CALENDAR DAYS.
3. IN LIEU OF GRASS SPRIGS (NOTE 1), THE CONTRACTOR MAY USE HYDROMULCH WITH SEEDINGS AND IRRIGATION SPRINKLER SYSTEM.

GRADING PHASES

1. WHEN GRADING WORK IS DONE IN PHASES, THE ENGINEER MUST ACCEPT THE COMPLETED PHASE PRIOR TO START OF WORK ON THE NEXT PHASE. EVEN AFTER A COMPLETED PHASE HAS BEEN ACCEPTED, THE GRASSING OR OTHER MEANS OF STABILIZATION MUST BE MAINTAINED UNTIL PROJECT COMPLETION.

HISTORIC PRESERVATION NOTES

1. SHOULD HISTORIC REMAINS SUCH AS ARTIFACTS, BURIALS, CONCENTRATIONS OF SHELL OR CHARCOAL BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, WORK SHALL CEASE IMMEDIATELY IN THE IMMEDIATE VICINITY OF THE FIND AND THE FIND SHALL BE PROTECTED FROM FURTHER DAMAGE. THE CONTRACTOR SHALL CORDON OFF THE AREA AND IMMEDIATELY NOTIFY THE PLANNING DEPARTMENT AT (808) 241-4050 AND THE STATE HISTORIC PRESERVATION DIVISION AT (808) 692-8015, WHICH WILL ASSESS THE SIGNIFICANCE OF THE FIND AND RECOMMEND THE APPROPRIATE MITIGATION MEASURES, IF NECESSARY. IN ADDITION, IF HUMAN BURIAL ARE FOUND, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE COUNTY OF KAUA'I POLICE DEPARTMENT.

| | | | | | |
|--|---|--------------|--------------|----------------|----------|
| <div><p>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 16-115-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.</p></div> | | | | | |
| | REVISION | DATE | BRIEF | MADE BY | APPROVED |
| | <div></div> | | | | |
| | PO'IPU ROAD MULTIMODAL IMPROVEMENTS FEDERAL-AID PROJECT NO. STP-5010(2) PO'IPU, KOLOA, KAUAI, HAWAI'I | | | | |
| | CONSTRUCTION NOTES 2 | | | | |
| DESIGNED BY: KU, KA | | DRAWN BY: DO | | CHECKED BY: KU | |
| APPROVED | | | SUBMITTED BY | | |
| DATE | | FIRM MEMBER | | DATE | |

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DATE: XXXXXXXXXXXXX

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WATER CONSTRUCTION NOTES

1. UNLESS OTHERWISE SPECIFIED, ALL MATERIALS AND CONSTRUCTION OF WATER FACILITIES AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE "WATER SYSTEM STANDARDS, 2002" AS ADOPTED BY THE DEPARTMENT OF WATER, COUNTY OF KAUAI, INCLUDING ALL SUBSEQUENT AMENDMENTS AND ADDITIONS.

2. THE CONTRACTOR SHALL ARRANGE A PRE-CONSTRUCTION CONFERENCE AT LEAST TEN (10) CALENDAR DAYS BEFORE CONSTRUCTION AND SHALL NOTIFY THE DEPARTMENT OF WATER AT LEAST THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

3. THE CONTRACTOR SHALL SUBMIT THE NAMES AND TELEPHONE NUMBERS OF ITS AUTHORIZED JOB SUPERINTENDENT AND AT LEAST THREE (3) ADDITIONAL PERSONS TO CONTACT IN CASE OF AN EMERGENCY DURING NON-WORKING HOURS.

4. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF WATER AT LEAST 24 HOURS PRIOR TO ANY TRENCHING, PIPE LAYING, BACKFILLING, TESTING OR DISINFECTION ACTIVITIES TO INSURE THAT INSPECTION SERVICES WILL BE AVAILABLE.

5. ALL MATERIALS (PIPE, LUBRICANTS, PAINTS, SEALANTS, FORM OIL, CONCRETE ADMIXTURES, ETC.) IN DIRECT CONTACT WITH THE POTABLE WATER SHALL HAVE NATIONAL SANITATION FOUNDATION (NSF) CERTIFICATIONS. THE CONTRACTOR SHALL SUBMIT THESE CERTIFICATIONS TO THE DEPARTMENT OF WATER FOR REVIEW AND APPROVAL PRIOR TO ITS APPLICATION.

6. THE LOCATION OF EXISTING WATER MAINS AND APPURTENANCES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD. EXCAVATION AROUND ANY EXISTING WATER MAIN SHALL BE DONE BY HAND.

7. THE CONTRACTOR SHALL PROVIDE UNOBSTRUCTED ACCESS TO EXISTING HYDRANTS, VALVES AND WATER METERS AT ALL TIMES.

8. THE CONTRACTOR SHALL SECURE ALL EXCAVATIONS IN ACCORDANCE WITH OSHA REGULATIONS.

9. THERE SHALL BE NO PHYSICAL CONNECTION BETWEEN A PUBLIC OR PRIVATE POTABLE WATER SYSTEM AND A NON-POTABLE WATER SYSTEM, SEWER, OR APPURTENANCE THERETO WHICH COULD PERMIT THE PASSAGE OF ANY SEWAGE OR POLLUTED WATER INTO THE POTABLE WATER SUPPLY.

10. TRENCH EXCAVATION, BACKFILLING IN LIFTS, AND REPAVING SHALL CONFORM TO THE HAWAII STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2005" AS AMENDED.

11. WARNING TAPE SHALL BE IN ACCORDANCE WITH DIVISION 200, SECTION 212.08 OF THE "WATER SYSTEM STANDARDS." THE WARNING TAPE SHALL BE FOUR MIL THICK, NON-METALLIC, ACID AND ALKALI RESISTANT POLYETHYLENE AND 6-INCHES WIDE WITH MINIMUM STRENGTH OF 1750 PSI LENGTHWISE AND 1500 PSI CROSSWISE. TAPE COLOR SHALL BE "SAFETY PRECAUTION BLUE" AND SHALL BEAR A CONTINUOUS PRINTED INSCRIPTION "CAUTION WATER LINE BURIED BELOW". INSCRIPTION SHALL BE 2-INCHES HIGH, BLACK TEXT.

12. ALL HYDRANTS SHALL RECEIVE A MINIMUM SSPC SP3 SURFACE PREPARATION AND COATED IN ACCORDANCE WITH DIVISION 200, SECTION 206.01 OF THE "WATER SYSTEM STANDARDS."

13. UNLESS OTHERWISE DIRECTED, PRIOR TO THE CONNECTION OF ANY PIPELINES AND/OR LATERALS TO THE EXISTING MAIN, THE PIPELINES/LATERALS INSTALLED SHALL BE CLEANED, PRESSURE TESTED, CHLORINATED, FLUSHED, AND SAMPLED IN ACCORDANCE WITH DIVISION 300, SECTIONS 302.27 TO 302.29 OF THE "WATER SYSTEM STANDARDS."

WATER SAMPLES SHALL BE TESTED FOR TOTAL COLIFORMS BY A LABORATORY CERTIFIED BY THE STATE OF HAWAII TO PERFORM COLIFORM ANALYSIS. PRESENCE OF COLIFORM BACTERIA IS UNACCEPTABLE.

IN ADDITION TO THE TEST FOR COLIFORMS, A SEPARATE TEST FOR HETEROTROPHIC PLATE COUNT (HPC) SHALL BE CONDUCTED. THE HPC COUNT SHALL BE LESS THAN 300 CFU/ML. PRIOR TO CHLORINATION, A WATER CHLORINATION AND SANITATION CONTRACTOR WITH A C-37D LICENSE SHALL SUBMIT A CHLORINATION PLAN WITH WATER SOURCE, INJECTION POINTS, SAMPLING POINTS AND PROCEDURE CLEARLY DEFINED FOR APPROVAL BY THE DOW.

THE TESTED PIPELINES AND/OR LATERALS MUST BE CONNECTED TO THE EXISTING DOW SYSTEM WITHIN 14 CALENDAR DAYS OF PULLING THE FIRST DISINFECTION SAMPLE TESTED BY A CERTIFIED

LABORATORY. THE DEPARTMENT OF WATER WILL REQUIRE THE CONTRACTOR TO REDO THE CLEANING, PRESSURE TESTING, AND/OR DISINFECTION OF THE PIPELINES AND/OR LATERALS AT THE CONTRACTOR'S EXPENSE IF THE CONNECTION IS NOT COMPLETED WITHIN THESE 14 CALENDAR DAYS.

14. POLYURETHANE FOAM "PIGS" SHALL BE "PUSHED" THROUGH THE LENGTH OF THE INSTALLED PIPELINE USING PRESSURIZED WATER.

15. ALL CONNECTIONS SHALL BE SCHEDULED IN COORDINATION WITH THE DEPARTMENT OF WATER.

a. AN ADVANCE DEPOSIT IS REQUIRED FOR OPERATING VALVES, FLUSHING LINES AND NOTIFYING -CONSUMERS AFFECTED BY A WATER SHUTDOWN DURING CONNECTIONS. THE CONTRACTOR WILL BE CHARGED THE ACTUAL COST.

b. THE CONTRACTOR SHALL PLACE THE DEPOSIT PRIOR TO SCHEDULING THE CONNECTION DATE.

c. CONNECTIONS SHALL BE SCHEDULED ON TUESDAYS THROUGH THURSDAYS. NO CONNECTIONS SHALL BE SCHEDULED ON MONDAYS, FRIDAYS, WEEKENDS, AND HOLIDAYS.

d. ALL MATERIALS SHALL BE ON HAND AND APPROVED BY THE ENGINEER PRIOR TO SCHEDULING THE CONNECTION DATE.

e. PUMPS USED TO DE-WATER THE CONNECTION AREA SHALL BE OPERATED IN THE PRESENCE OF THE ENGINEER PRIOR TO SCHEDULING THE CONNECTION DATE.

f. ALL CONNECTIONS SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER.

16. IN ORDER TO PREVENT DAMAGE TO THE POLYETYLENE ENCASEMENT FROM EXCESSIVE HANDLING, THE POLYWRAP SHALL BE INSTALLED AROUND THE BARREL OF THE DUCTILE IRON PIPE AT ITS FINAL LOCATION ALONG THE TRENCHLINE. THE POLYETHYLENE ENCASED PIPE SHALL BE LIFTED USING A FABRIC TYPE SLING OR A SUITABLY PADDED CABLE OR CHAIN TO PREVENT DAMAGE TO THE POLYETHYLENE.

17. THE CONTRACTOR SHALL TAKE ALL NECESSARY COMPACTION TESTS WHILE THE WATERLINE TRENCH IS BEING BACKFILLED AND WHILE THE SUBBASE/BASECOURSE IS BEING PLACED. IF THE TEST RESULTS INDICATE THAT ADDITIONAL COMPACTION IS REQUIRED, THE CORRECTIVE WORK SHALL BE COMPLETED BEFORE ANY ADDITIONAL TRENCH EXCAVATION OR PLACING OF SUBBASE/BASECOURSE IS ALLOWED.

18. THE CONTRACTOR SHALL CONNECT ALL EXISTING CONSUMER PIPING TO THE NEW SERVICE LATERALS. THE DEPARTMENT OF WATER WILL TRANSFER THE EXISTING WATER METERS ONLY.

19. ALL FITTINGS SHALL BE MECHANICAL JOINT (MJ) AT EACH END UNLESS OTHERWISE NOTED. "MEGALUG" RETAINER GLANDS SHALL BE USED WITH ALL MECHANICAL JOINT FITTINGS AND VALVES USED IN CONNECTING NEW WATER MAINS TO EXISTING WATER MAINS UNLESS OTHERWISE NOTED.

20. ALL WATER VALVES THAT WILL BE ABANDONED IN PLACE SHALL BE PLACED IN THE "CLOSED" POSITION. REMOVE TOP SECTION OF VALVE BOX AND CONCRETE SETTLEMENT SLAB. FILL REMAINDER OF VALVE BOX WITH CONCRETE. PLACE BACKFILL AND REPAIR PAVEMENT SECTION TO APPLICABLE STATE OR COUNTY STANDARDS. BACKFILL TO FINISH GRADE IN ROAD SHOULDER AREA.

21. THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE DEPARTMENT OF HEALTH PERMITS PRIOR TO THE START OF CONSTRUCTION. PERMITS INCLUDE, BUT ARE NOT LIMITED TO, NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITS FOR STORM WATER, HYDROSTATIC TEST, DEWATERING, AND FOR CONSTRUCTION ACTIVITIES, INCLUDING CLEARING, GRADING, AND EXCAVATION, THAT RESULT IN THE DISTURBANCE OF EQUAL TO OR GREATER THAN ONE (1) ACRE OF TOTAL LAND AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF STORM WATER DISCHARGES AND EFFLUENT ASSOCIATED WITH CONSTRUCTION ACTIVITIES INCLUDING HYDROTESTING AND DISINFECTION OPERATIONS, TO SAFEGUARD PUBLIC HEALTH AND SAFETY IN ACCORDANCE WITH APPLICABLE DEPARTMENT OF HEALTH REQUIREMENTS. ALL PERMITS

AND LICENSES FOR STORM WATER AND CONSTRUCTION WATER DISPOSAL, INCLUDING ALL APPLICATION, CHARGES, FEES, AND TAXES, ARE THE RESPONSIBILITY OF THE CONTRACTOR.

22. THE CONTRACTOR IS RESPONSIBLE FOR DEWATERING TRENCH AS NECESSARY WHERE GROUNDWATER IS ENCOUNTERED. ALL ASSOCIATED COSTS FOR DEWATERING SHALL BE BORNE BY THE CONTRACTOR.

23. THE USE OF KNOWN SEWER PUMP TRUCKS IS PROHIBITED FOR DOW PROJECTS FOR ANY USE, INCLUDING BUT NOT LIMITED TO DEWATERING AND TESTING OF NEW FACILITIES.

24. THE CONTRACTOR SHALL VERIFY OUTSIDE DIAMETER OF ALL EXISTING ASBESTOS-CEMENT (AC) WATERLINES TO BE CONNECTED. CONTRACTOR SHALL VERIFY USE OF PROPER GASKETS PRIOR TO CONNECTION. AC PIPE AND GASKET INFORMATION SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL.

25. ALL CONNECTIONS TO EXISTING AC PIPE SHALL BE AT THE NEAREST AC PIPE JOINT. AC PIPE SHALL BE REMOVED BY ENTIRE LENTH(S) TO FACILITATE THE CONNECTION. CUTTING OF AC PIPE IS PROHIBITED.

26. THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE OSHA, HIOSH AND FEDERAL REGULATIONS IN HANDLING AND DISPOSAL OF ASBESTOS-CEMENT PIPE. DISPOSAL OF THE PIPE SHALL BE AT AN APPROVED ASBESTOS MATERIAL DISPOSAL SITE.

27. ALL WATERWORKS BRASS FITTINGS SHALL BE IN COMPLIANCE WITH THE AMENDED SECTION 1417 OF SAFE DRINKING WATER ACT (SDWA) WHICH TAKES EFFECT ON JANUARY 4, 2014. THE AMENDMENT INCLUDES A CHANGE TO THE DEFINITION OF "LEAD-FREE" BY REDUCING LEAD CONTENT FROM 8% TO A WEIGHTED AVERAGE OF NOT MORE THAN 0.25% IN THE WETTED SURFACE MATERIAL. ALL WATERWORKS BRASS FITTINGS INSTALLED FOR POTABLE WATER SERVICE ON JANUARY 4, 2014 AND BEYOND SHALL CONFORM TO THE AMENDED DEFINITION OF "LEAD-FREE."

AS INDICATED IN SECTION 211 OF WATER SYSTEM STANDARDS - BRASS PRODUCTS, ALL BRASS FITTINGS SHALL CONFORM TO NSF STANDARD 61 AND SECTION 1417 OF THE SAFE DRINKING WATER ACT (SDWA). IN ADDITION, ALL BRASS FITTINGS SHALL CONFORM TO NSF STANDARD 372.

28. CONTRACTOR SHALL INSTALL WATER FACILITIES ONLY AFTER REACHING FINAL SUBGRADE OR HIGHER. THE DEPARTMENT OF WATER WILL NOT ALLOW INSTALLATION OF ANY WATER FACILITIES UNTIL THE FINAL SUBGRADE LAYER AT MINIMUM HAS BEEN ACHIEVED.

DEPARTMENT OF WATER SPECIAL NOTES

CERTIFICATION OF COMPLETION FOR THESE WATER SYSTEM FACILITIES WILL NOT BE ISSUED UNTIL:

1. ALL WATER IMPROVEMENTS ARE COMPLETE AND DEDICATED TO THE DEPARTMENT OF WATER.

2. AS-BUILT TRACINGS ARE SUBMITTED TO THE DEPARTMENT OF WATER.

3. FINAL COST BREAKDOWN FOR THE WATER IMPROVEMENTS ARE SUBMITTED AND APPROVED BY THE DEPARTMENT OF WATER. THE OWNER SHALL CERTIFY COSTS.

4. ROADWAY AND PIPELINE EASEMENTS ARE CONVEYED TO THE DEPARTMENT OF WATER, IF APPLICABLE.

5. PAYMENT OF ALL APPLICABLE FEES FOR THE DEVELOPMENT HAVE BEEN RECEIVED BY THE DEPARTMENT OF WATER.

6. OTHER REQUIRED CONDITIONS ARE COMPLETED, IF APPLICABLE.

KAUAI ISLAND UTILITY COOPERATIVE (KIUC) NOTES

1. THE CONTRACTOR SHALL CONDUCT A SEPARATE PRE-CONSTRUCTION MEETING WITH THE UTILITIES PRIOR TO START OF CONSTRUCTION.

2. THE CONTRACTOR SHALL CALL BEFORE YOU DIG NUMBER AT 1-866-423-7287 FOR UNDERGROUND UTILITY LOCATES TEN DAYS BEFORE START OF CONSTRUCTION.

3. THE CONTRACTOR SHALL NOTIFY THE KIUC'S CONSTRUCTION COORDINATOR AT (808) 246-2323 AT LEAST FIVE DAYS IN ADVANCE, IF KIUC FACILITIES WILL BE AFFECTED.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST TO ADJUST OR RELOCATE KIUC'S FACILITIES AND TO TEMPORARILY

RELOCATE FACILITIES.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO KIUC FACILITIES. ANY DAMAGES SHALL BE REPORTED IMMEDIA TEL Y TO KIUC TROUBLE CALL AT (808) 246-8200.

6. A MINIMUM OF 15 FEET RADIAL CLEARANCE IS REQUIRED WHEN WORKING WITHIN THE VICINITY OF ENERGIZED OVERHEAD ELECTRICAL LINES.

PAVEMENT AND TRENCH RESTORATION NOTES

1. TRENCH REPAVING SHALL BE A MINIMUM 8-INCHES THICK BASE COURSE AND 2-INCHES MINIMUM ASPHALT CONCRETE (STATE MIX V). IF THE EXISTING PAVEMENT STRUCTURE IS GREATER IN THICKNESS AND QUALITY, THE REPAVING SHALL MATCH THE EXISTING PAVEMENT STRUCTURE.

2. PAVEMENT RESURFACING WORK SHALL INCLUDE 2-INCH THICKNESS OF EXISTING A.C. TO BE COLD PLANED AND CONSTRUCTION OF A MINIMUM OF 2-INCH OF NEW A.C. (STATE MIX V) LAYER.

3. ROAD RESTORATION FOR TRENCHES ALIGNED ALONG THE LONGITUDINAL DIRECTION SHALL INCLUDE PAVEMENT RESURFACING AS FOLLOWS:

A. ROADS WITH PAVEMENT WIDTHS OF LESS THAN 12 FEET WIDE SHALL BE REPAVED THE ENTIRE WIDTH.

B. ROADWAYS BETWEEN 12 FEET AND 28 FEET WIDE WITH NO STRIPING SHALL BE PAVED FOR HALF OF THE ROADWAY.

C. ROADWAYS WITH NO STRIPING AND PAVEMENT WIDTHS GREATER THAN 28 FEET SHALL HAVE A 12-FOOT WIDE TRAVEL WAY RESURFACED.

4. ROAD RESTORATION FOR TRENCHES ALIGNED PERPENDICULAR TO THE ROADWAY SHALL INCLUDE ROAD RESURFACING FOR A MINIMUM OF 6 FEET BEYOND THE TRENCH EDGES.

5. THE ENTIRE ROAD INTERSECTION SHALL BE RESURFACED WHENEVER TRENCH REPAVING IS REQUIRED WITHIN ANY PORTION OF AN INTERSECTION. THE LIMITS OF RESURFACING SHALL BE THE CURVE RETURNS OF THE ROADWAYS OF THE INTERSECTIONS.

6. ALL EXISTING PAVEMENT STRIPING DISTURBED BY THIS PROJECT SHALL BE RESTORED. THE STRIPING MATERIALS SHALL BE THERMOPLASTIC TAPE OR THERMOPLASTIC EXTRUSION. PAINTING IS NOT ACCEPTABLE.

7. THE LIMITS OF ROAD RESTORATION WORK MAY BE REVISED BY THE ENGINEERING DIVISION OF THE COUNTY DEPARTMENT OF PUBLIC WORKS DURING PROCESSING OF ROAD PERMITS FOR THIS PROJECT.

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| KAUAI | HAW. | STP-5010(002) | 2018 | XX | XX |

LEGEND:

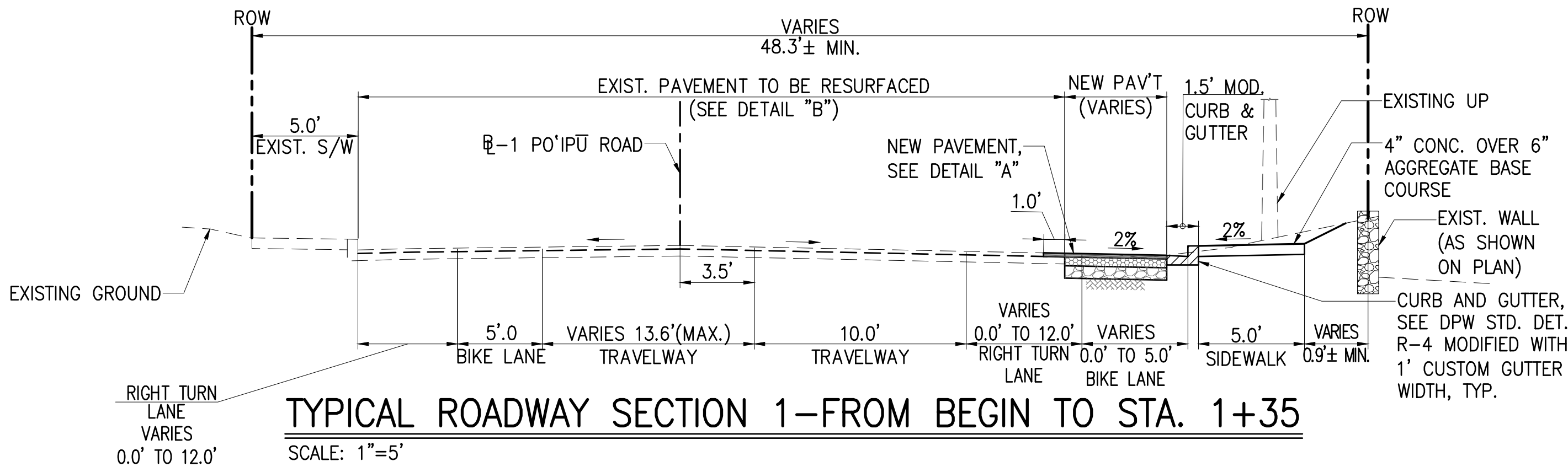
| | | | |
|--------|----------------------------------|-----------|--------------------------|
| A/C | ASPHALTIC CONCRETE | LP | LIGHT POLE |
| DFP | BACK FLOW PREVENTER | O.C. | ON CENTER |
| B | BASELINE | PCC | PORTLAND CEMENT CONCRETE |
| BC | BOTTOM OF CURB | | |
| Δ BM | BENCH MARK | PV | PRESSURE VALVE |
| BW | BOTTOM OF WALL | R/RAD | RADIUS |
| CLF | CHAIN LINK FENCE | R/W | RIGHT-OF-WAY |
| C | CENTER LINE | RPM | RAISED PAVEMENT MARKER |
| CONC. | CONCRETE | ○ SDMH | STORM DRAIN MANHOLE |
| CB | CATCH BASIN | ○ SMH | SEWER MANHOLE |
| D | DIAMETER | ○ SHT | SHEET |
| DBL | DOUBLE | STA | STATION |
| D/W | DRIVEWAY | ● ST. MON | STREET MONUMENT |
| DWY | DRIVEWAY | S/W | SIDEWALK |
| □ EBX | ELECTRIC BOX | TC | TOP OF CURB |
| EP | EDGE OF PAVEMENT | TP | TELEPHONE POLE |
| FH | FIRE HYDRANT | ∅ TRANS | TRANSFORMER BOX |
| □ GDI | GRADED DRAIN INLET | TV | TELEVISION |
| GW | GUY WIRE | TW | TILE WALL |
| H | HEIGHT | TW | TOP OF WALL |
| HB | HOSE BIB | TYP | TYPICAL |
| □ HMA | HOTMIX ASPHALT | VMH | VERZION MANHOLE |
| □ HTC | HAWAIIAN TELCOM | WHT | WHITE |
| □ KIUC | KAUAI ISLAND UTILITY COOPERATIVE | WM | WATER METER |
| | MAIL BOX | WMB | WATER METER BOX |
| ∅ PP | POWER POLE | WMH | WATER MANHOLE |
| | | WV | WATER VALVE |
| | | YLV | YELLOW |

| | | | | | | |
|---|--|---------------------|-------|-------------|--------------|----------------|
| <div><div><div>MATTHEW K. UYEN</div><div>LICENSED PROFESSIONAL ENGINEER</div><div>No. 13463-C</div><div>HAWAII, U.S.A.</div></div><div><div>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 16-115-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.</div></div></div> | | | | | | |
| | REVISION | DATE | BRIEF | MADE BY | APPROVED | |
| | <div><div><div><div>Austin Tsutsumi</div><div>& ASSOCIATES, INC.</div><div>Engineers & Surveyors</div></div></div></div> | | | | | |
| | <div><div>PO'IPU ROAD MULTIMODAL IMPROVEMENTS</div><div>FEDERAL-AID PROJECT NO. STP-5010(2)</div><div>PO'IPU, KOLOA, KAUAI, HAWAII</div></div> | | | | | |
| | <div>CONSTRUCTION NOTES 3</div> | | | | | |
| LICENSE EXPIRES: APRIL 30, 2018 | | DESIGNED BY: KU, KA | | | DRAWN BY: DO | CHECKED BY: KU |
| DWG. NO. C-003 | | APPROVED | | | | SUBMITTED BY |
| SHEET XX OF XX | | DATE | | FIRM MEMBER | | DATE |

DATE: XXXXXXXXXXXXX

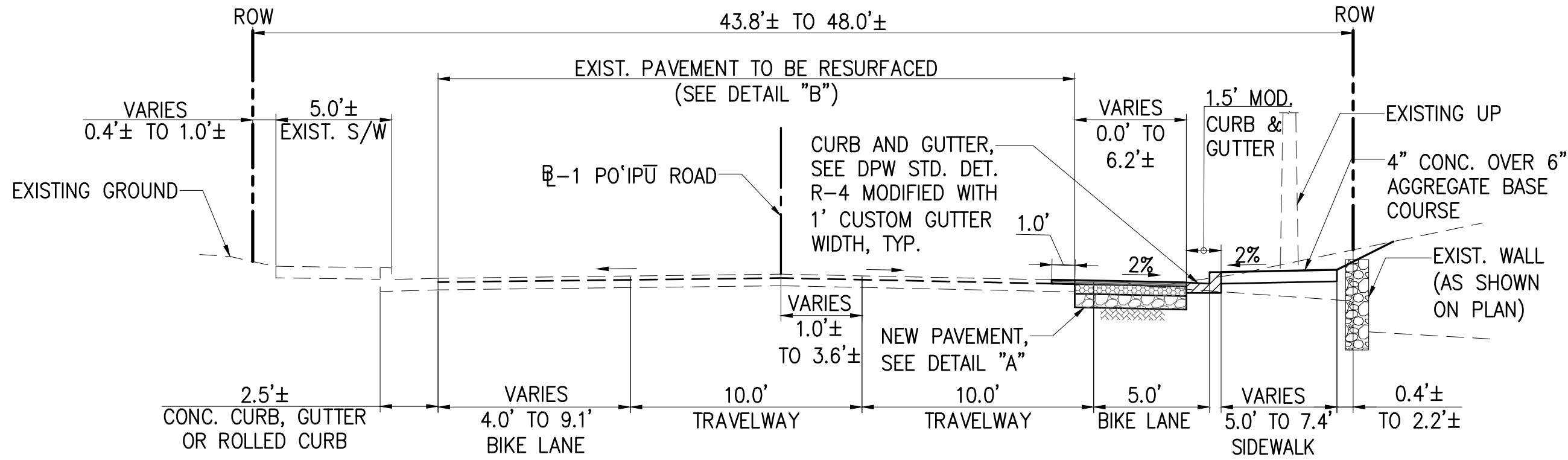
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| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
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| KAUAI | HAW. | STP-5010(002) | 2018 | XX | XX |



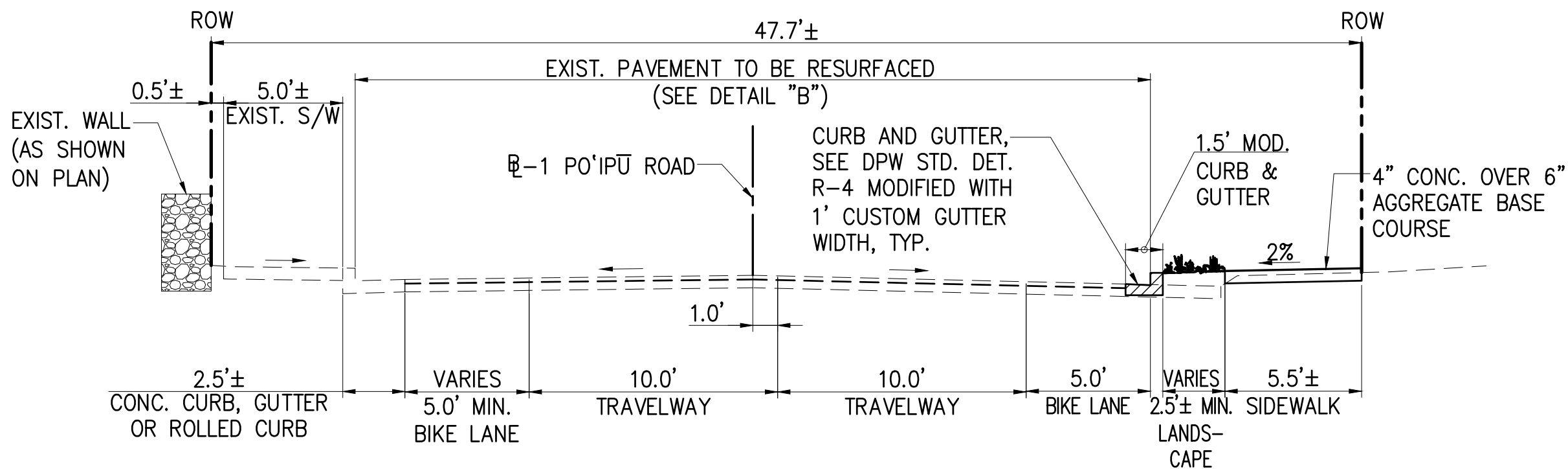
TYPICAL ROADWAY SECTION 1—FROM BEGIN TO STA. 1+35

SCALE: 1"=5'



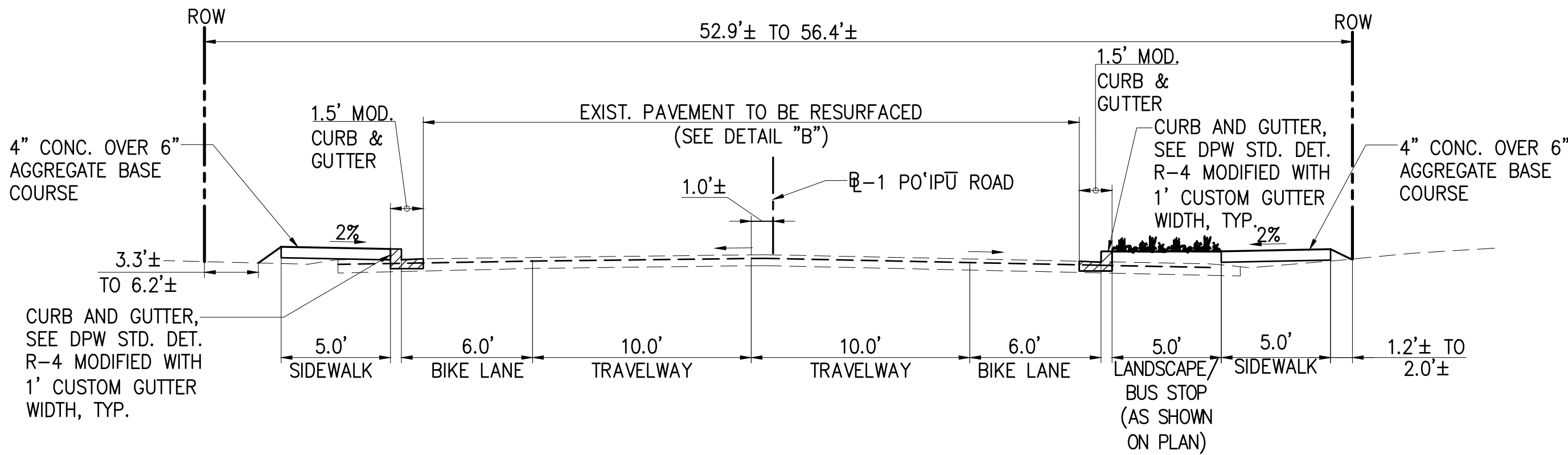
TYPICAL ROADWAY SECTION 2—FROM STA. 1+35 TO STA. 10+92

SCALE: 1"=5'



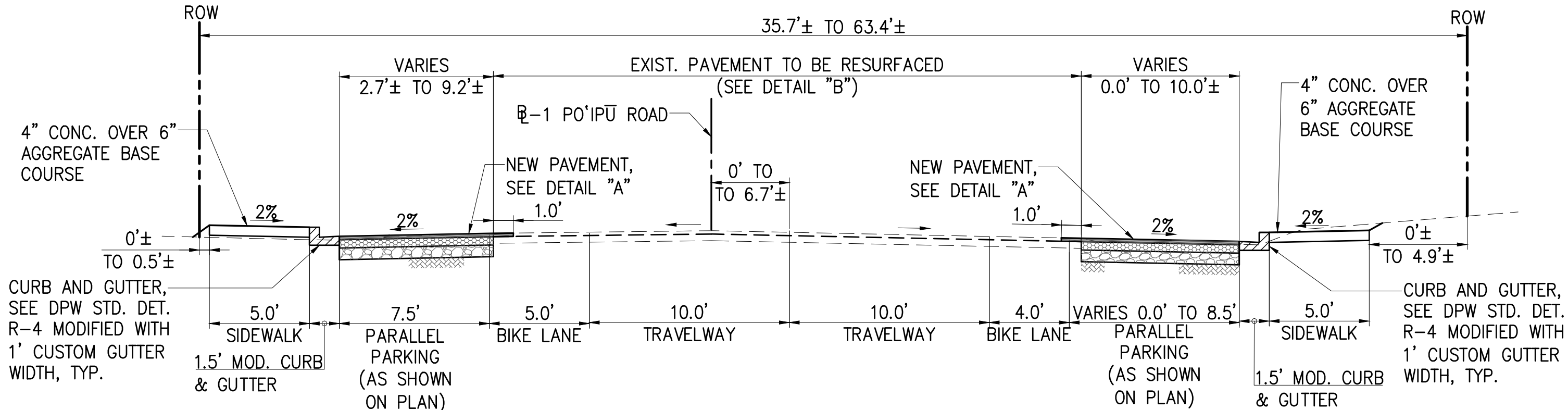
TYPICAL ROADWAY SECTION 3—FROM STA. 11+16 TO STA. 12+46

SCALE: 1"=5'



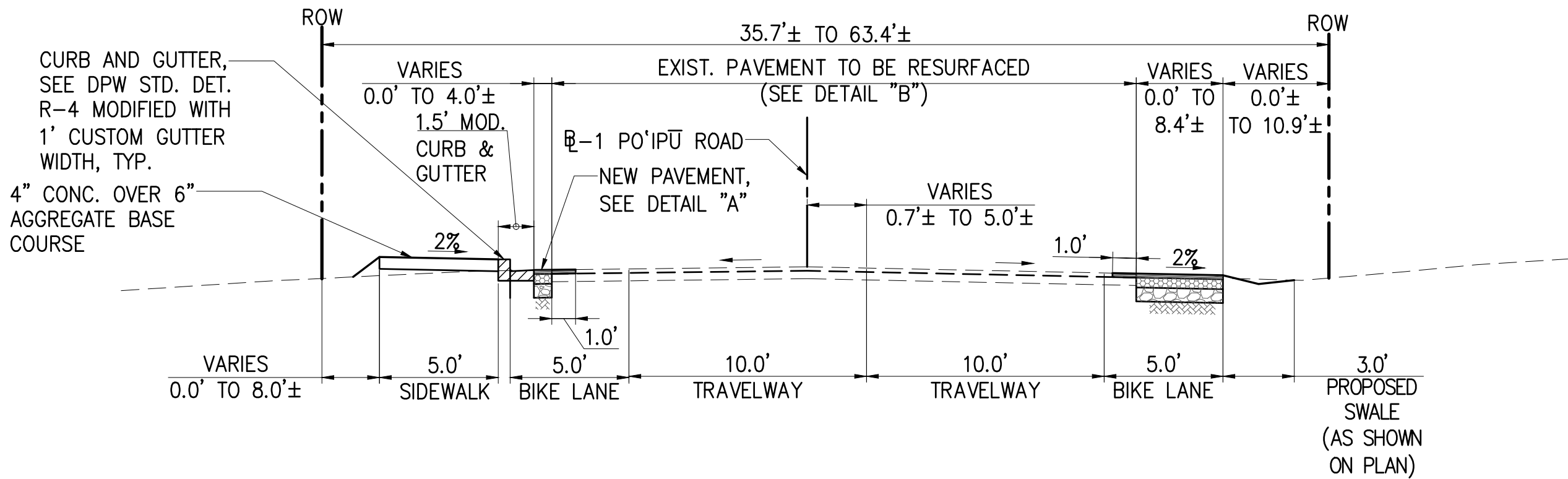
TYPICAL ROADWAY SECTION 4.1—FROM STA. 17+55 TO STA. 18+65

SCALE: 1"=5'



TYPICAL ROADWAY SECTION 4.2—FROM STA. 18+65 TO STA. 23+96

SCALE: 1"=5'



TYPICAL ROADWAY SECTION 4.3—FROM STA. 24+76 TO STA. 38+52

SCALE: 1"=5'



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 16-115-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2018

DWG. NO. **C-101**
SHEET **XX** OF **XX**

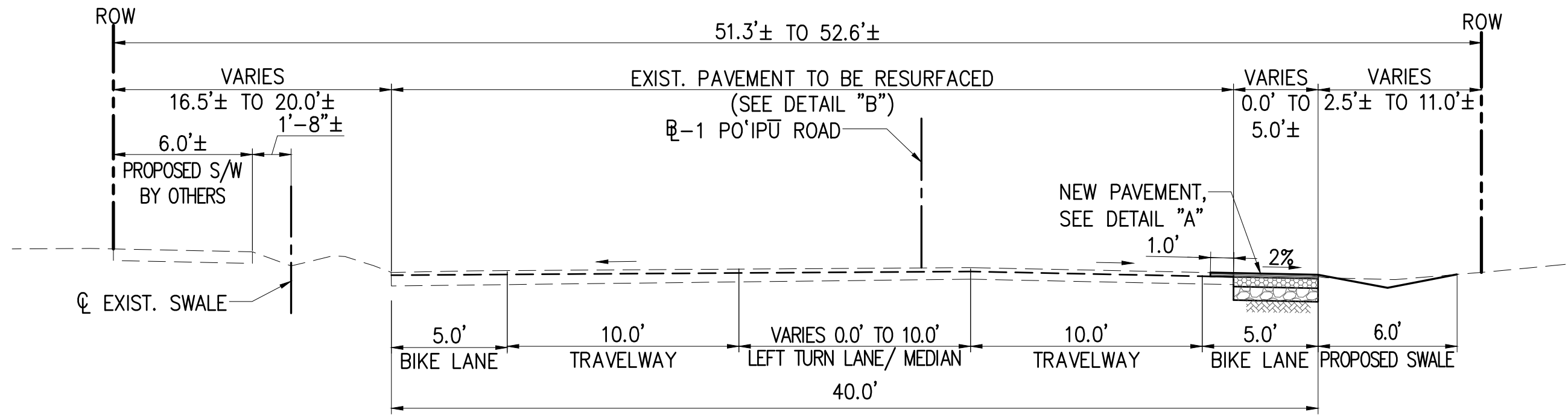
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| Austin Tsutsumi & Associates, Inc. Engineers & Surveyors | | | | |
| PO'IPU ROAD MULTIMODAL IMPROVEMENTS FEDERAL-AID PROJECT NO. STP-5010(2) PO'IPU, KOLOA, KAUAI, HAWAII | | | | |
| TYPICAL ROADWAY SECTION - 1 | | | | |
| DESIGNED BY: KU, KA | DRAWN BY: DO | CHECKED BY: KU | APPROVED | |
| SUBMITTED BY | | DATE | FIRM MEMBER | DATE |

DATE: XXXXXXXXXXXXX

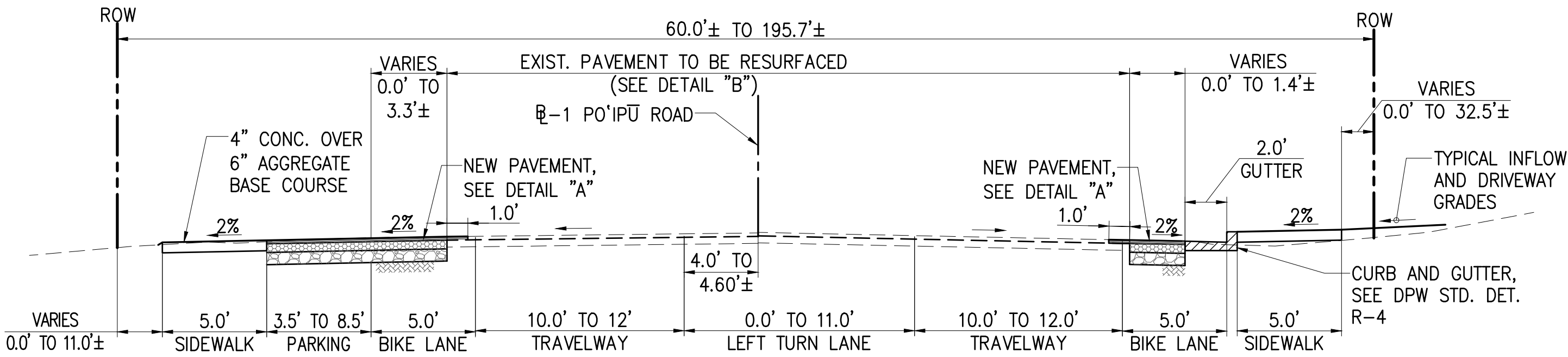
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| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
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| KAUAI | HAW. | STP-5010(002) | 2018 | XX | XX |



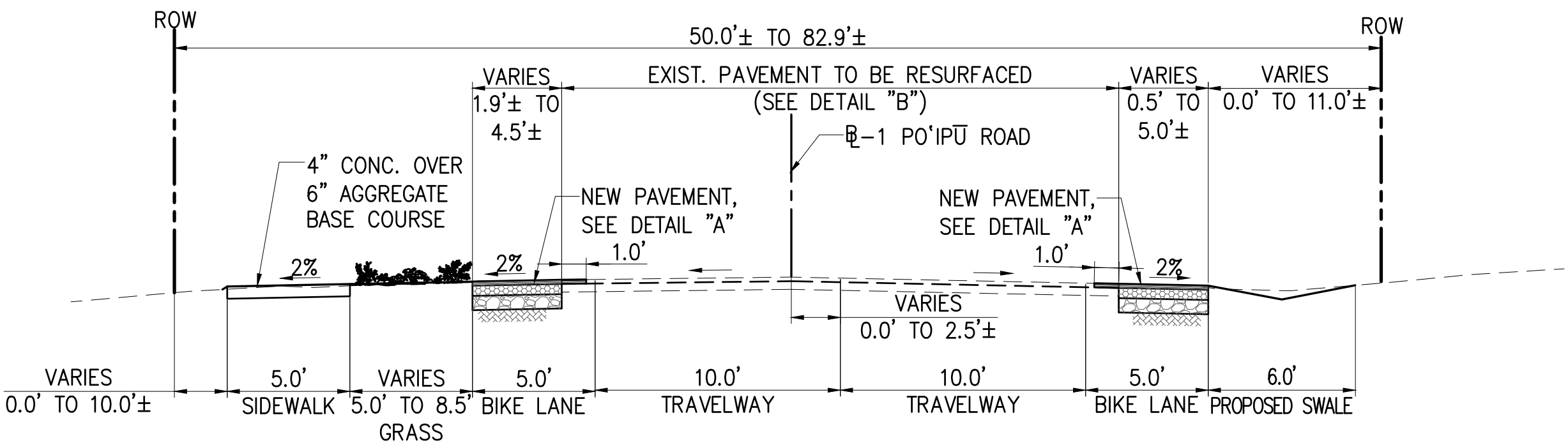
TYPICAL ROADWAY SECTION 5—FROM STA. 38+52 TO STA. 48+40

SCALE: 1"=5'



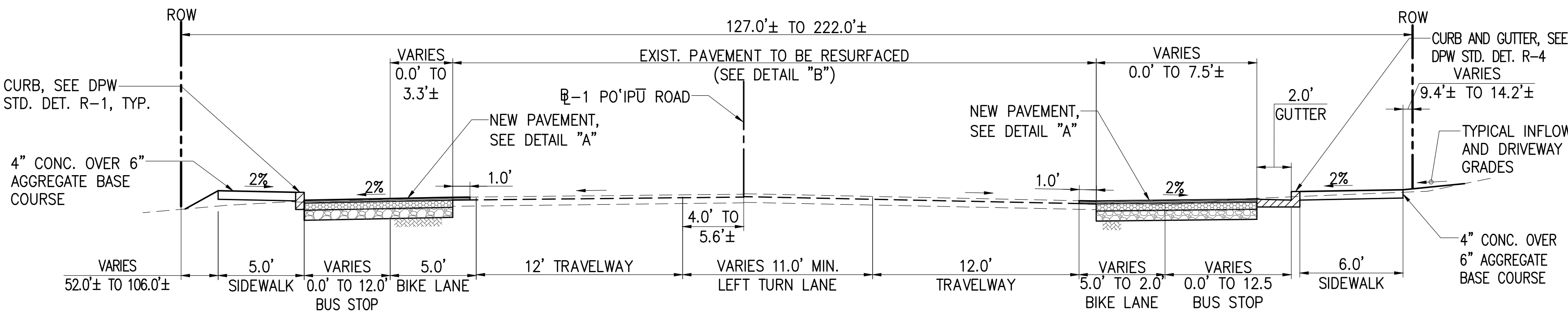
TYPICAL ROADWAY SECTION 7—FROM STA. 70+62 TO STA. 73+00

SCALE: 1"=5'



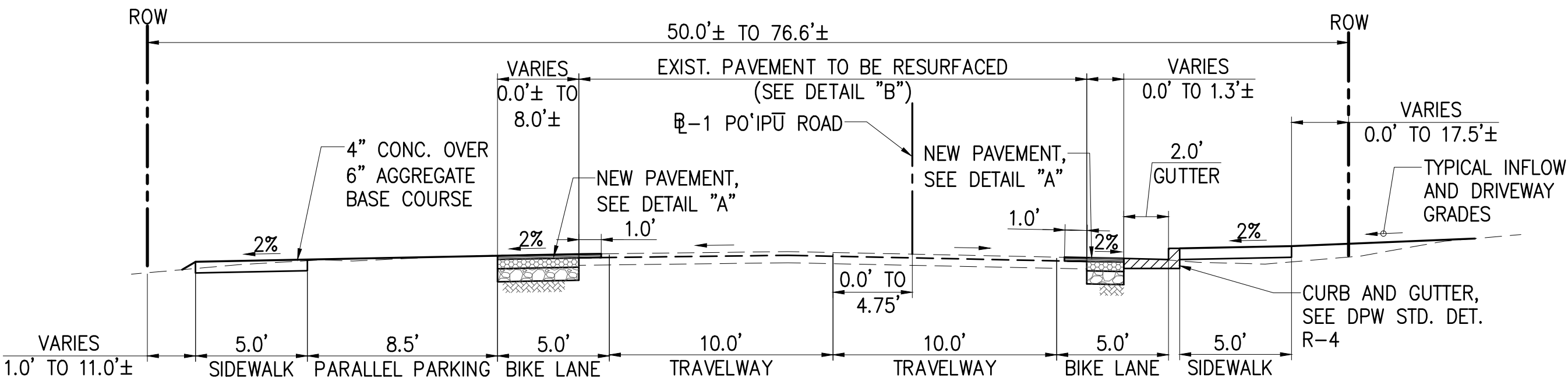
TYPICAL ROADWAY SECTION 6.1—FROM STA. 48+40 TO STA. 67+12

SCALE: 1"=5'



TYPICAL ROADWAY SECTION 7.1—FROM STA. 73+00 TO STA. 75+46

SCALE: 1"=5'



TYPICAL ROADWAY SECTION 6.2—FROM STA. 67+12 TO STA. 70+62

SCALE: 1"=5'

NOTE:

- ROADWAY IS SUPERELEVATED AT STA. 38+50, 55+00, 61+50 AND 68+00




THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 16-115-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2018

DWG. NO. **C-102**
SHEET **XX** OF **XX**

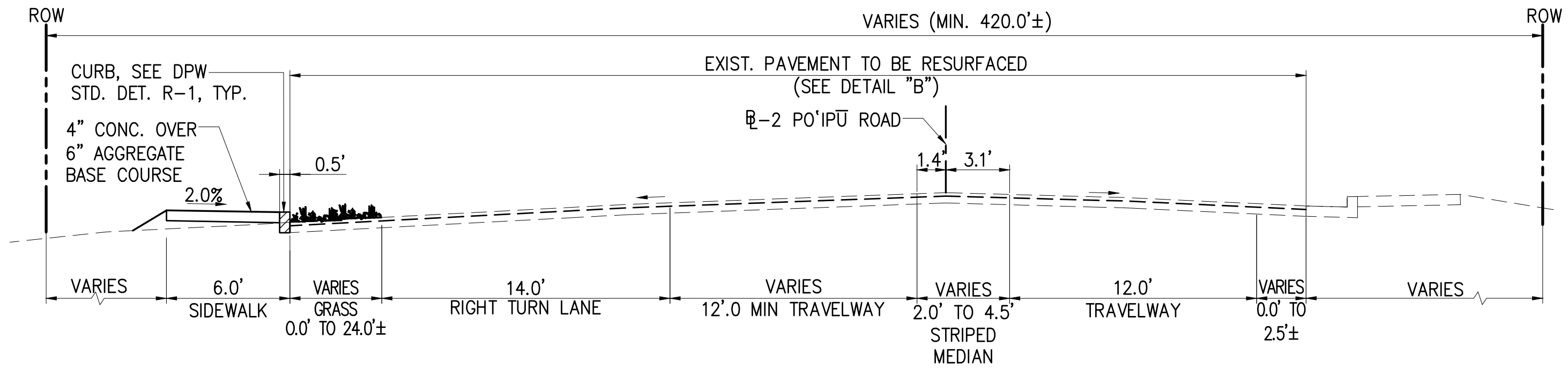
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| REVISION | DATE | BRIEF | MADE BY | APPROVED |
| <div><div></div><div><div>Austin Tsutsumi</div><div>& ASSOCIATES, INC.</div><div>Engineers & Surveyors</div></div></div> | | | | |
| PO'IPU ROAD MULTIMODAL IMPROVEMENTS FEDERAL-AID PROJECT NO. STP-5010(2) PO'IPU, KOLOA, KAUAI, HAWAII | | | | |
| TYPICAL ROADWAY SECTION – 2 | | | | |
| DESIGNED BY KU, KA | | DRAWN BY DO | | CHECKED BY KU |
| APPROVED | | | SUBMITTED BY | |
| DATE | | FIRM MEMBER | | DATE |

DATE: XXXXXXXXXXXXX

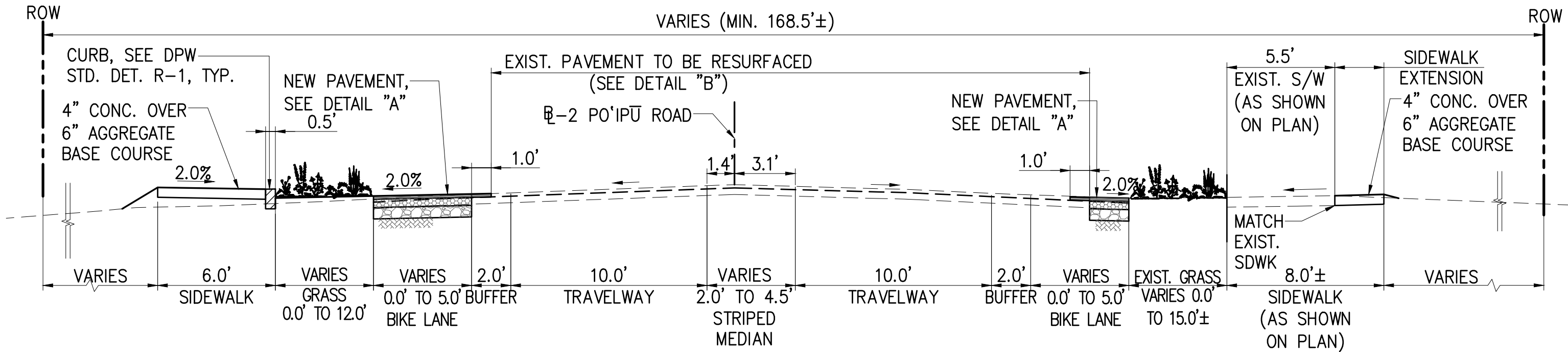
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| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
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| KAUAI | HAW. | STP-5010(002) | 2018 | XX | XX |



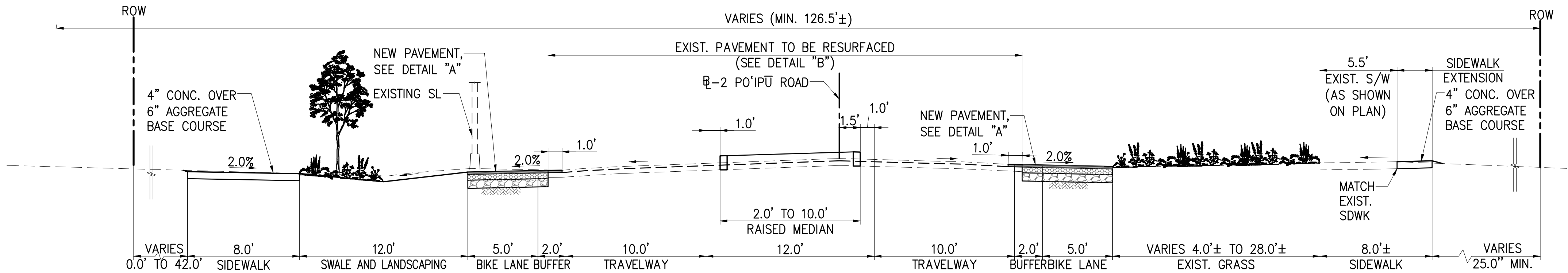
TYPICAL SECTION 8.1—FROM STA. 0+00 TO STA. 2+00

SCALE: 1"=5'



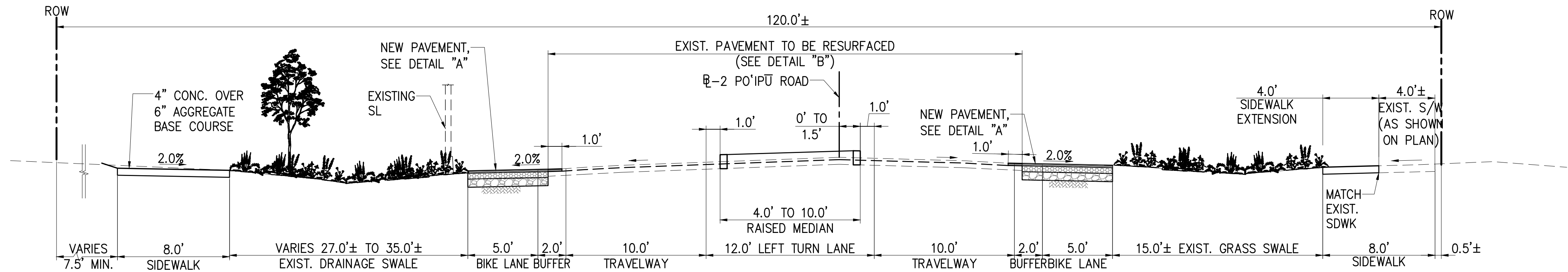
TYPICAL SECTION 8.2—FROM STA. 2+00 TO STA. 3+55

SCALE: 1"=5'



TYPICAL SECTION 8.3—FROM STA. 3+55 TO STA. 7+00

SCALE: 1"=5'



TYPICAL SECTION 9—FROM STA. 7+00 TO STA. 12+50

SCALE: 1"=5'




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LICENSE EXPIRES: APRIL 30, 2018

DWG. NO. **C-103**
SHEET XX OF XX

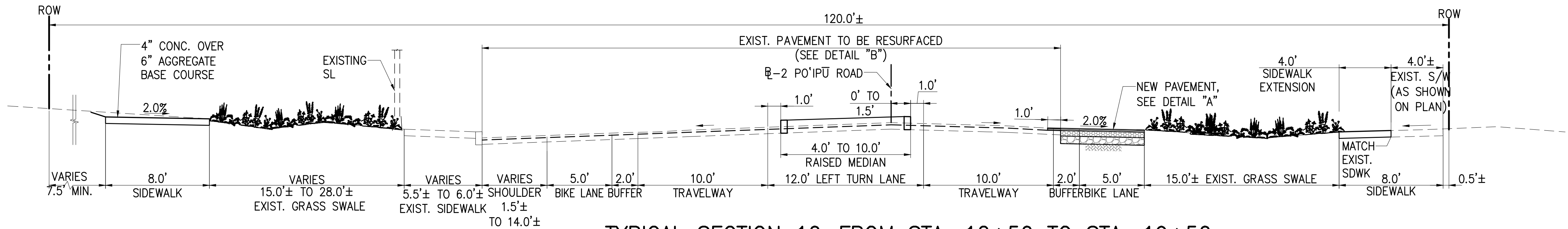
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| <div> Austin Tsutsumi & ASSOCIATES, INC. Engineers & Surveyors</div> | | | | | |
| PO'IPU ROAD MULTIMODAL IMPROVEMENTS FEDERAL-AID PROJECT NO. STP-5010(2) PO'IPU, KOLOA, KAUAI, HAWAII | | | | | |
| TYPICAL ROADWAY SECTION – 3 | | | | | |
| DESIGNED BY: KU, KA | | DRAWN BY: DO | | CHECKED BY: KU | |
| APPROVED | | SUBMITTED BY | | | |
| DATE | | FIRM MEMBER | | DATE | |

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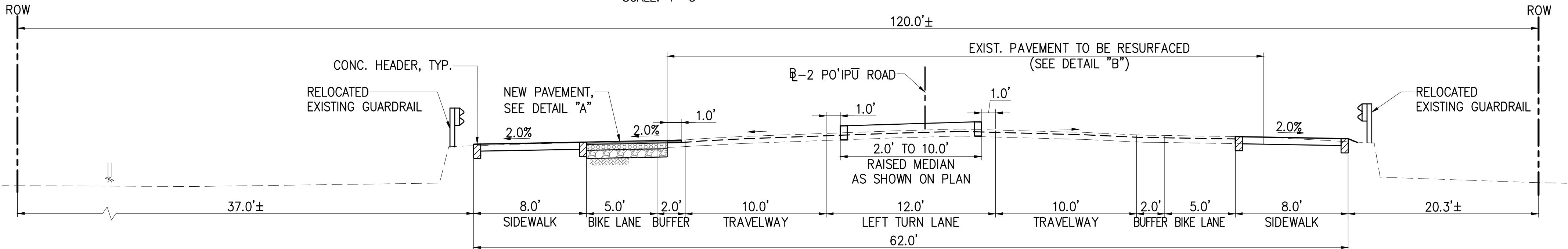
Y:\2016\16-013\ENGINEERING\DWG\C-101 TO 104 TYPICAL ROADWAY SECTION.dwg; December 3, 2018

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| KAUAI | HAW. | STP-5010(002) | 2018 | XX | XX |



TYPICAL SECTION 10—FROM STA. 12+50 TO STA. 19+50

SCALE: 1"=5'



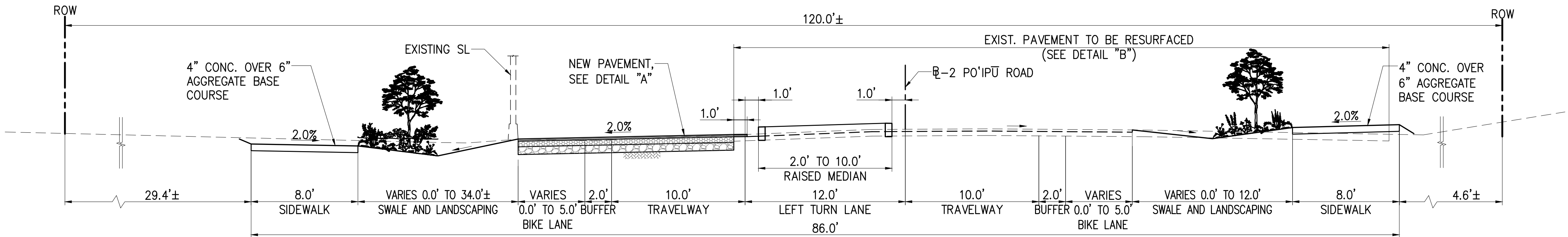
NOTE:

- ROADWAY IS SUPERELEVATED AT STA. 20+00

TYPICAL ROADWAY SECTION 11—FROM STA. 20+00 TO 20+50

FROM STA. 49+00 TO STA. 49+50, STA. 58+50 TO 60+58

SCALE: 1"=5'

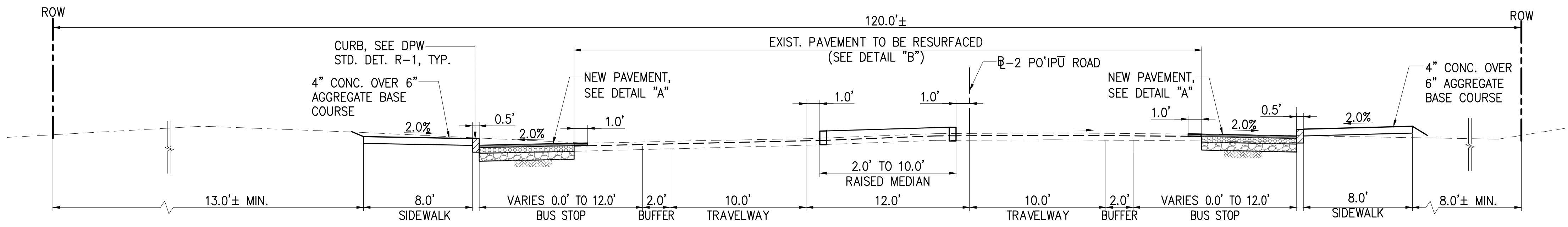


TYPICAL SECTION 12

FROM STA. 21+05 TO STA. 32+00, STA. 35+62 TO STA. 38+50, STA. 47+00 TO STA. 48+50

FROM STA. 49+65 TO STA. 53+90, STA. 55+60 TO STA. 57+90, STA. 60+58 TO STA. 64+30

SCALE: 1"=5'



TYPICAL SECTION 13—FROM STA. 34+00 TO STA. 35+62, STA. 53+90 TO STA. 55+60

SCALE: 1"=5'



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 16-115-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2018

DWG. NO. **C-104**
SHEET XX OF XX

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2-inches : Scale Accordingly)

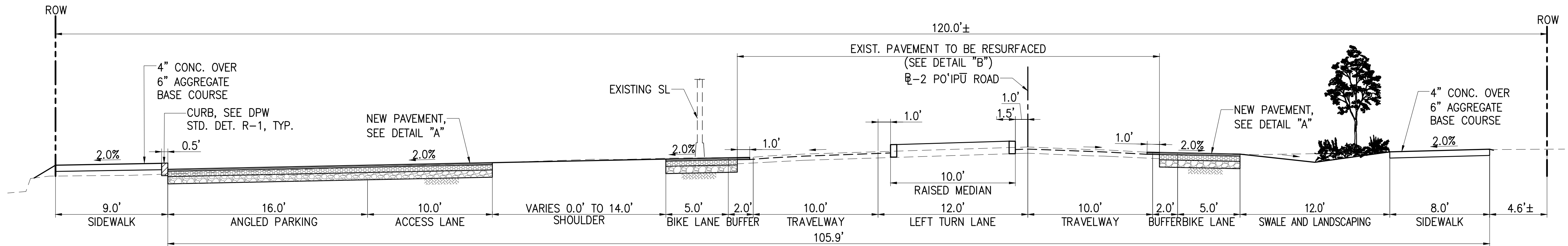
| REVISION | DATE | BRIEF | MADE BY | APPROVED |
|--|--------------|----------------|-------------|----------|
| Austin Tsutsumi & Associates, Inc. Engineers & Surveyors | | | | |
| PO'IPU ROAD MULTIMODAL IMPROVEMENTS FEDERAL-AID PROJECT NO. STP-5010(2) PO'IPU, KOLOA, KAUAI, HAWAII | | | | |
| TYPICAL ROADWAY SECTION - 4 | | | | |
| DESIGNED BY: KU, KA | DRAWN BY: DO | CHECKED BY: KU | APPROVED | |
| SUBMITTED BY | | DATE | FIRM MEMBER | DATE |

DATE: XXXXXXXXXXXXX

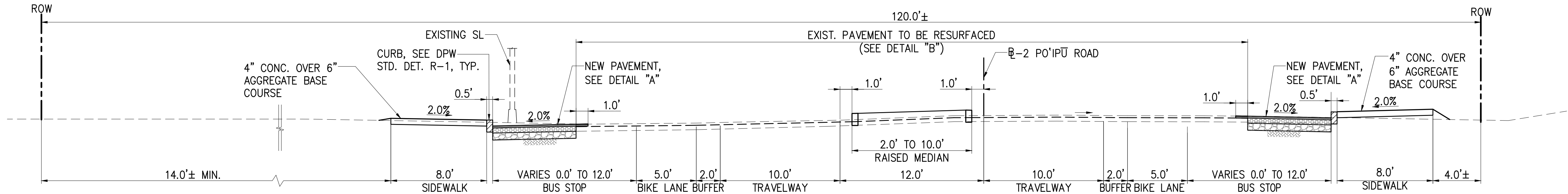
| FILE | POCKET | FOLDER | NO. |
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Y:\2016\16-013\ENGINEERING\DWG\C-101 TO 104 TYPICAL ROADWAY SECTION.dwg; December 3, 2018

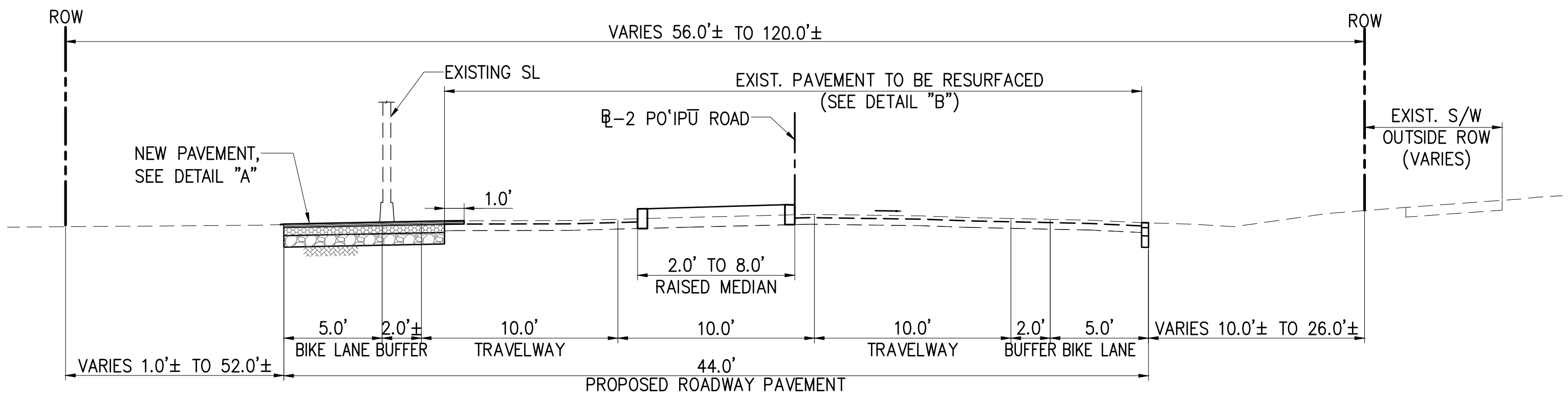
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| KAUAI | HAW. | STP-5010(002) | 2018 | XX | XX |



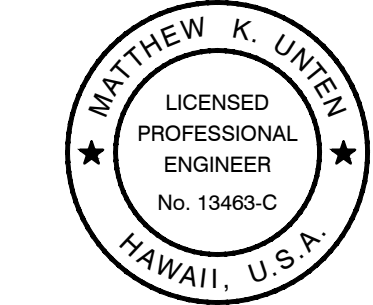
TYPICAL SECTION 14—FROM STA. 38+50 TO STA. 41+58 ADN STA. 42+50 TO STA. 46+83
SCALE: 1"=5'



TYPICAL SECTION 15—FROM STA. 53+90 TO STA. 55+60
SCALE: 1"=5'



TYPICAL ROADWAY SECTION 16—FROM STA. 64+50 TO STA. 81+50
SCALE: 1"=5'




THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 116-115-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2018

DWG. NO. **C-105**
SHEET **XX** OF **XX**

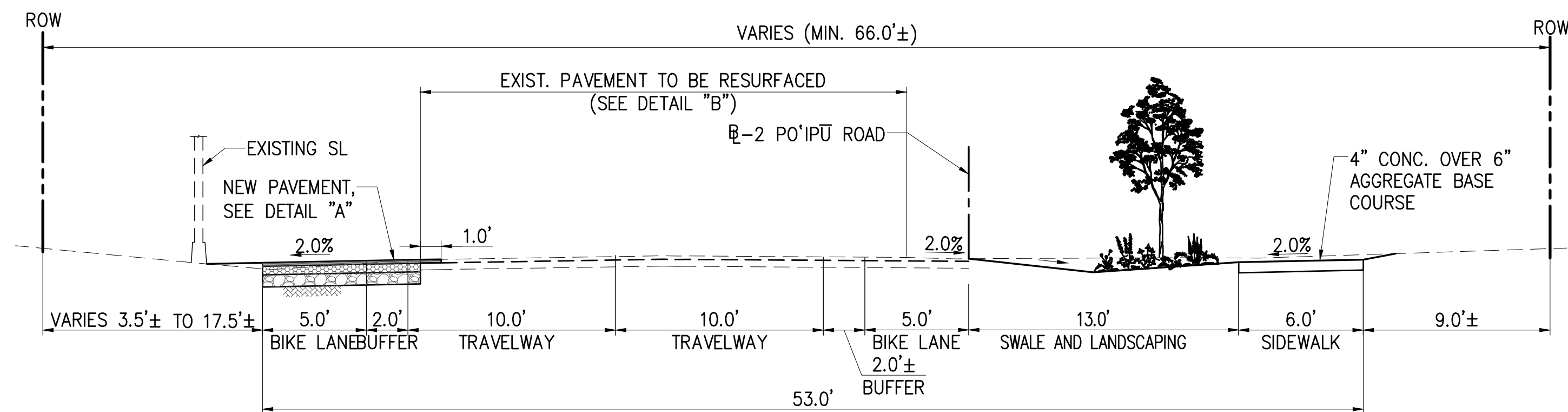
0 1 2
LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2-inches : Scale Accordingly)

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| | | | | | |
| REVISION | DATE | BRIEF | MADE BY | APPROVED | |
| <div> Austin Tsutsumi & ASSOCIATES, INC. Engineers & Surveyors</div> | | | | | |
| PO'IPU ROAD MULTIMODAL IMPROVEMENTS FEDERAL-AID PROJECT NO. STP-5010(2) PO'IPU, KOLOA, KAUA'I, HAWA'I | | | | | |
| TYPICAL ROADWAY SECTION – 5 | | | | | |
| DESIGNED BY: KU, KA | | DRAWN BY: DO | | CHECKED BY: KU | |
| APPROVED | | SUBMITTED BY | | | |
| DATE | | FIRM MEMBER | | DATE | |

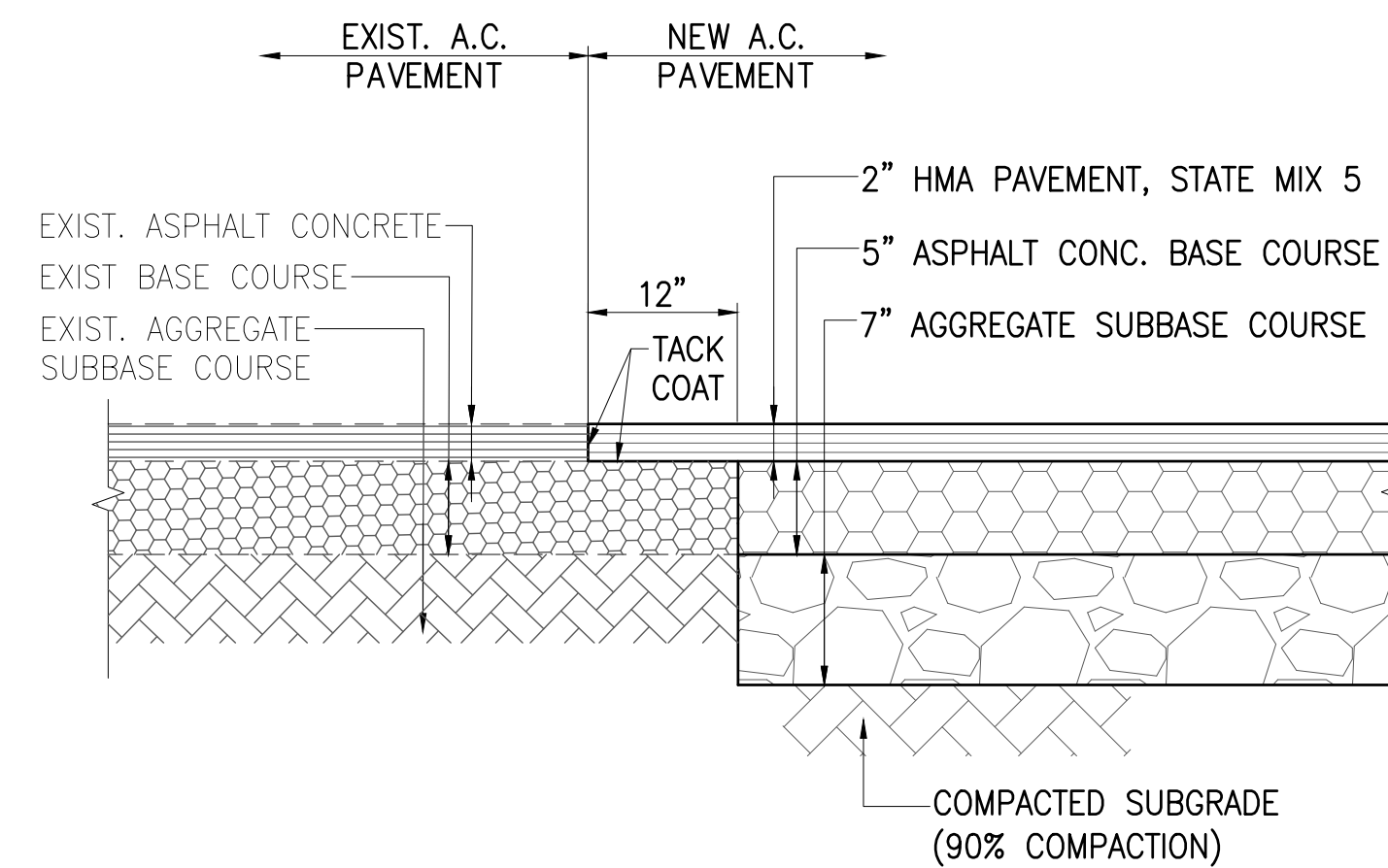
DATE: XXXXXXXXXXXXX

| FILE | POCKET | FOLDER | NO. |
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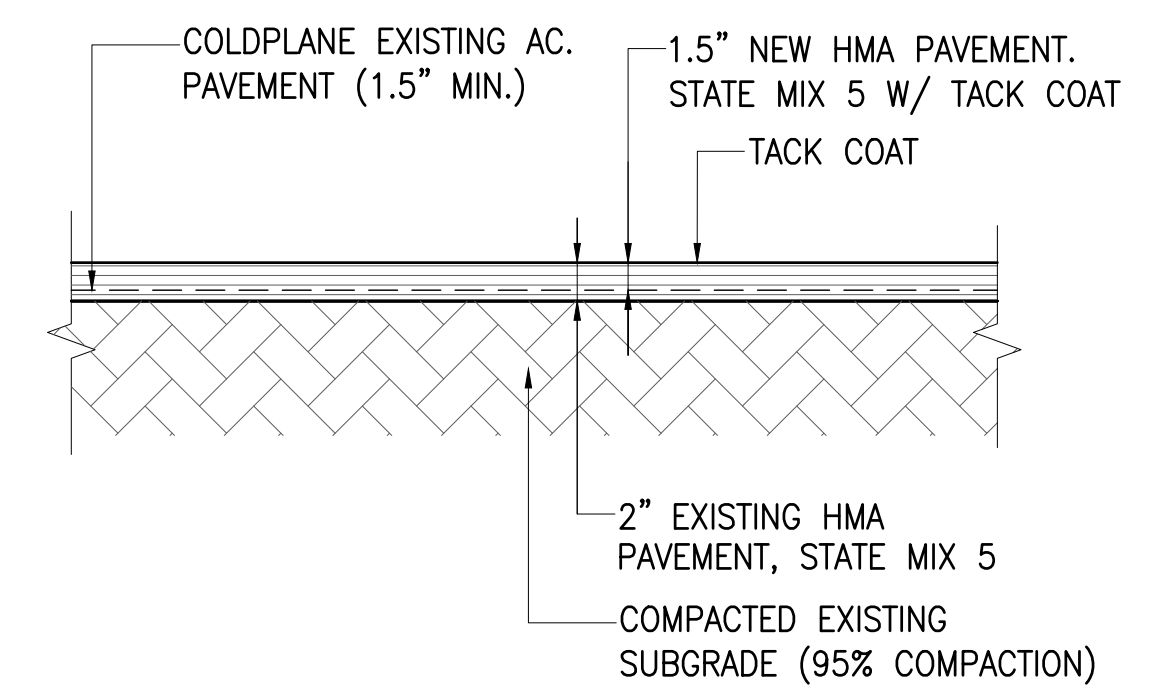
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|------------------------|-------|-----------------------|----------------|--------------|-----------------|
| KAUAI | HAW. | STP-5010(002) | 2018 | XX | XX |



TYPICAL ROADWAY SECTION 17—FROM STA. 84+10 TO STA. 87+50
SCALE: 1"=5'

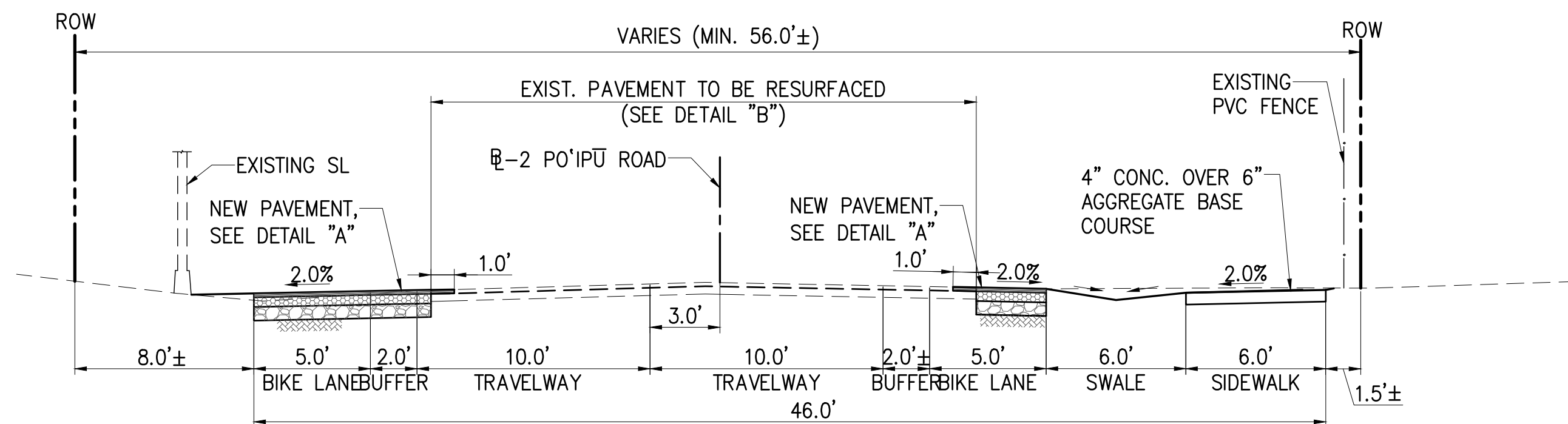


DETAIL "A" – NEW PAVEMENT
AND CONNECTION TO EXISTING AC PAVEMENT DETAIL
NOT TO SCALE

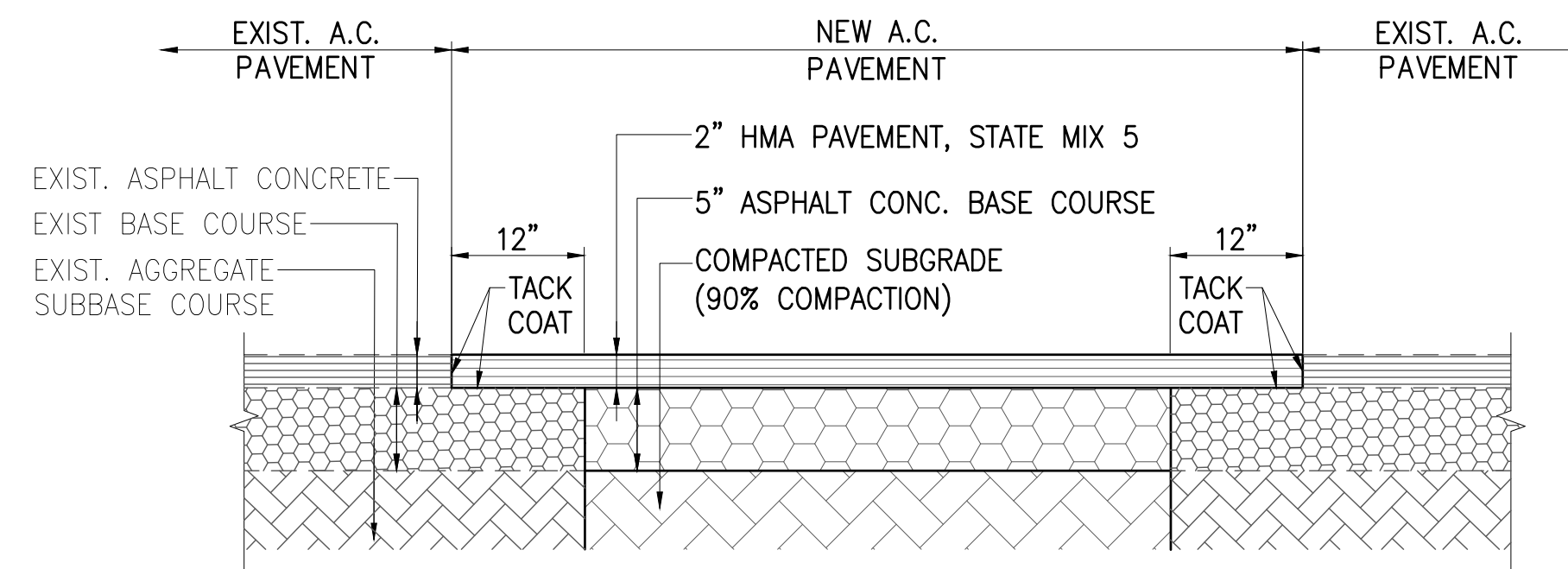


DETAIL "B"—PAVEMENT RESURFACE

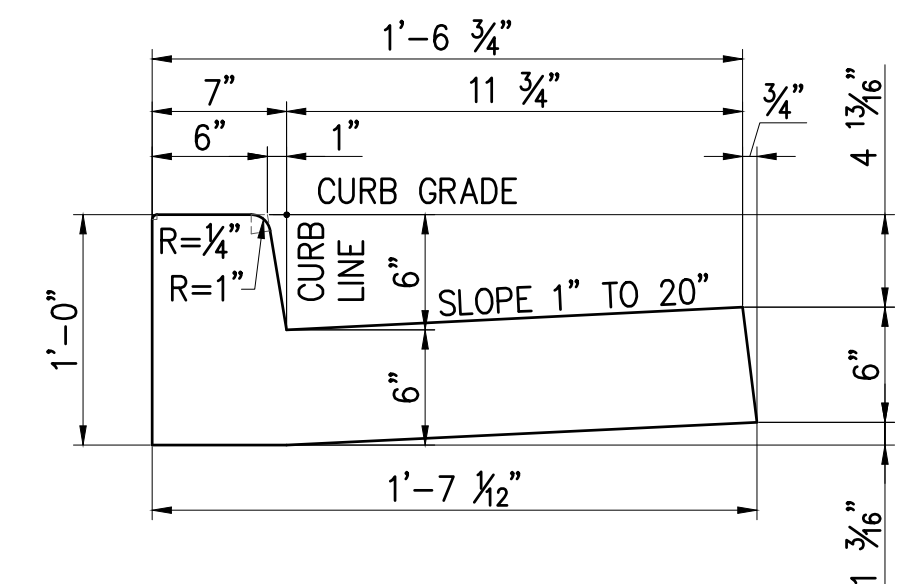
NOT TO SCALE



TYPICAL ROADWAY SECTION 18—FROM STA. 89+00 TO STA. END
SCALE: 1"=5'



DETAIL "C" – DISTRESSED PAVEMENT RECONSTRUCTION
AND CONNECTION TO EXISTING AC PAVEMENT DETAIL
NOT TO SCALE



CLASS "A" CONCRETE QUANTITY=0.0584 CU. YD./LIN. FT.

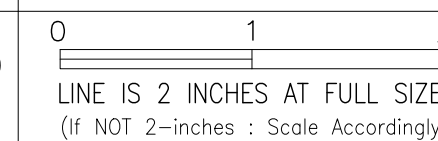
MODIFIED CONC. CURB AND GUTTER
NOT TO SCALE




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LICENSE EXPIRES: APRIL 30, 2018

DWG. NO. **C-106**
SHEET XX OF XX



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|----------|------|-------|---------|----------|
| | | | | |
| REVISION | DATE | BRIEF | MADE BY | APPROVED |



Austin Tsutsumi

& ASSOCIATES, INC.
Engineers & Surveyors

PO'IPU ROAD MULTIMODAL IMPROVEMENTS

FEDERAL-AID PROJECT NO. STP-5010(2)

PO'IPU, KOLOA, KAUAI, HAWAII

TYPICAL ROADWAY SECTION – 6

| | | |
|---------------------------|--------------------|----------------------|
| DESIGNED BY KU, KA | DRAWN BY DO | CHECKED BY KU |
|---------------------------|--------------------|----------------------|

APPROVED

DATE

SUBMITTED BY

FIRM MEMBER

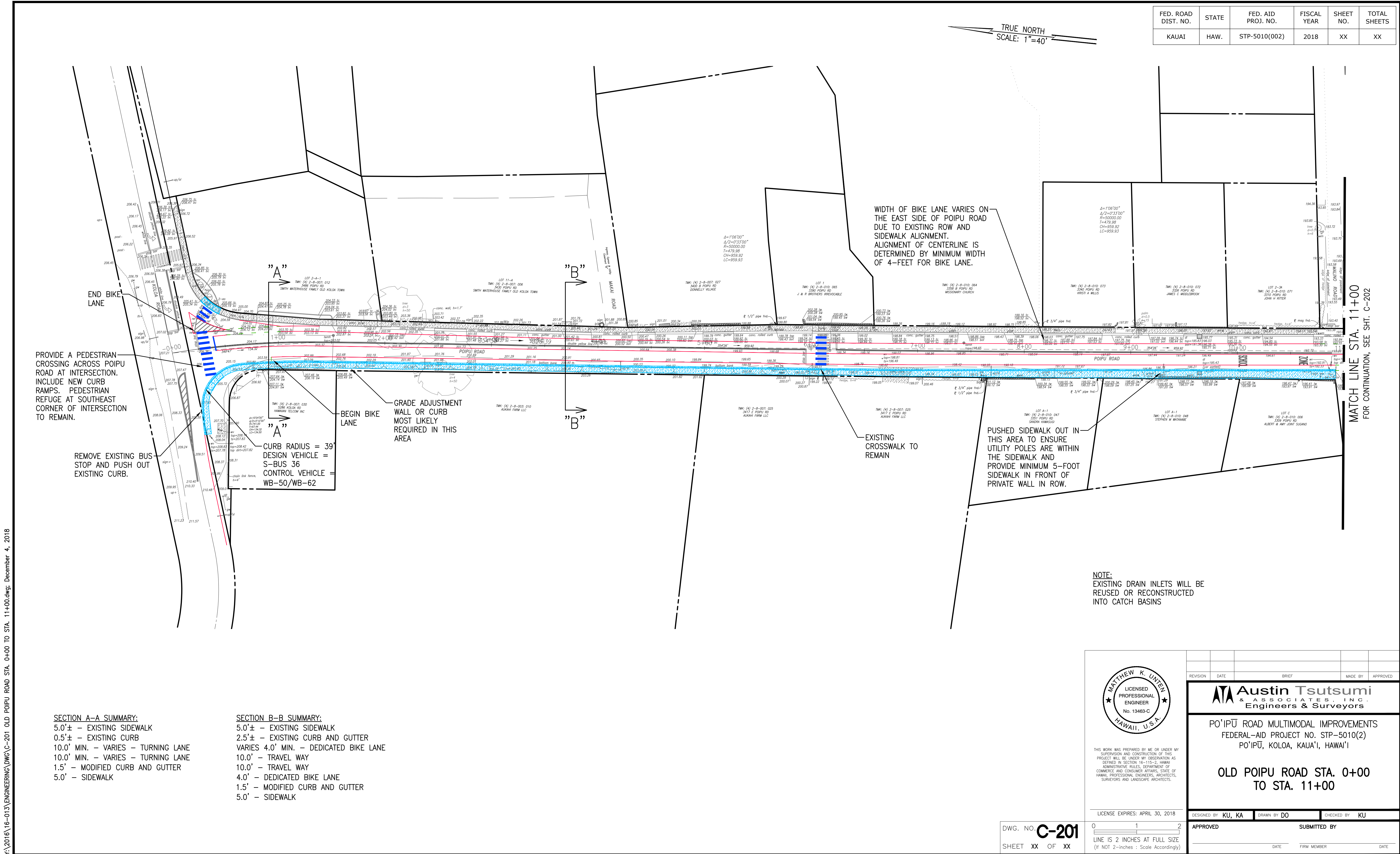
DATE

DATE: XXXXXXXXXXXXXXXX

| FILE | POCKET | FOLDER | NO. |
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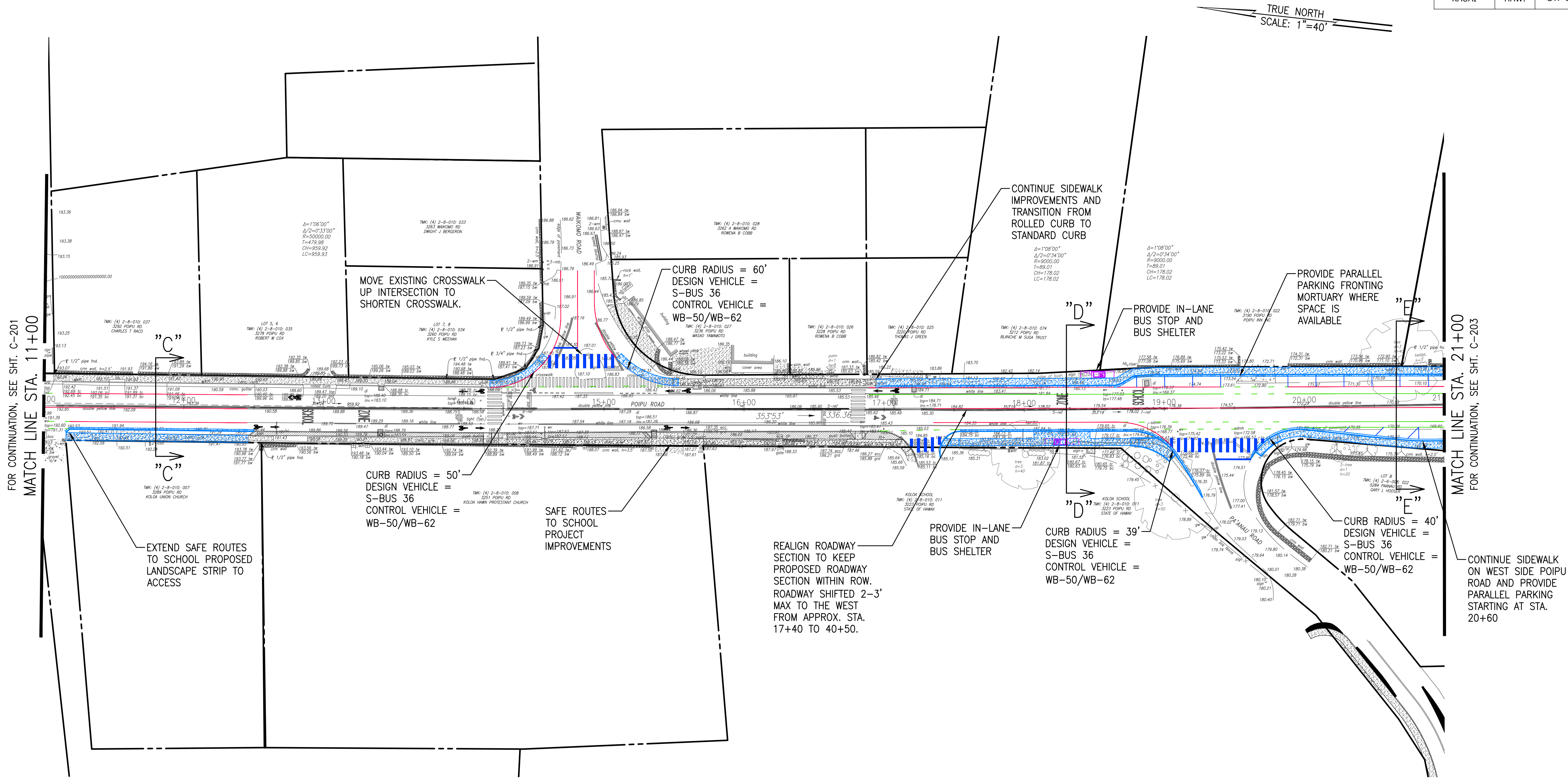
Y:\2016\16-013\ENGINEERING\DWG\C-201 OLD POIPU ROAD STA. 0+00 TO STA. 11+00.dwg: December 4, 2018

JOB NO. XX-XXX

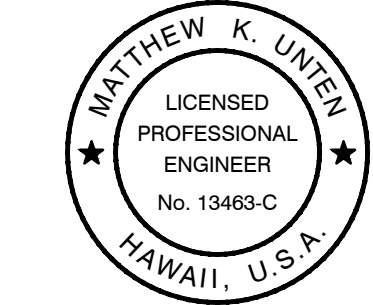


Y:\2016\16-013\ENGINEERING\DWG\C-202 OLD POIPU ROAD STA. 11+00 TO STA. 21+00.dwg; December 4, 2018

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| KAUAI | HAW. | STP-5010(002) | 2018 | XX | XX |



NOTE:
EXISTING DRAIN INLETS WILL BE REUSED OR RECONSTRUCTED INTO CATCH BASINS



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 116-115-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2018

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2-inches : Scale Accordingly)

DWG. NO. **C-202**
SHEET **XX** OF **XX**

| REVISION | DATE | BRIEF | MADE BY | APPROVED |
|----------|------|-------|---------|----------|
|----------|------|-------|---------|----------|

Austin Tsutsumi
& ASSOCIATES, INC.
Engineers & Surveyors

PO'IPU ROAD MULTIMODAL IMPROVEMENTS
FEDERAL-AID PROJECT NO. STP-5010(2)
PO'IPU, KOLOA, KAUAI, HAWAII

OLD POIPU ROAD STA. 11+00
TO STA. 21+00

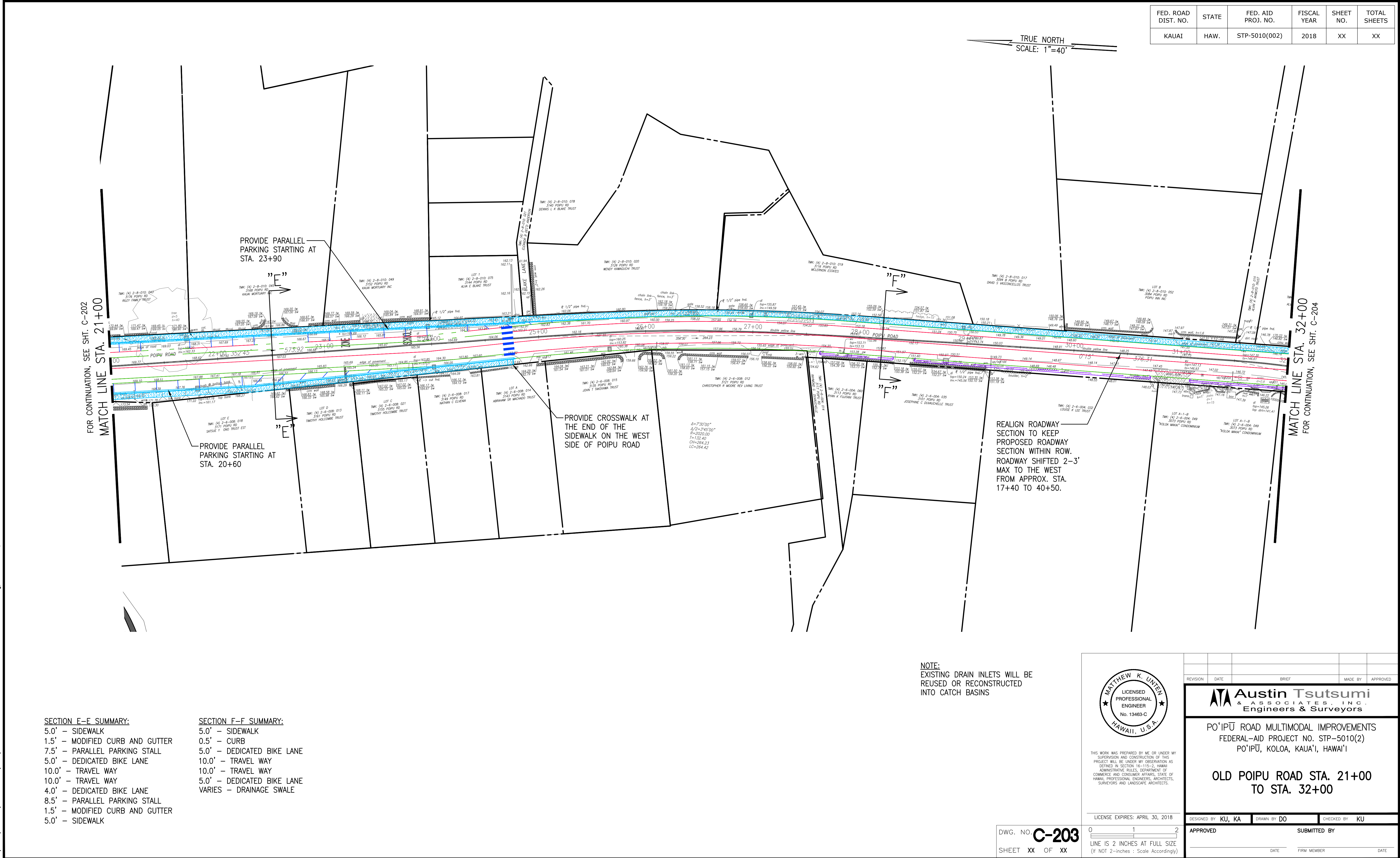
DESIGNED BY: **KU, KA** DRAWN BY: **DO** CHECKED BY: **KU**

APPROVED SUBMITTED BY

DATE FIRM MEMBER DATE

| FILE | POCKET | FOLDER | NO. |
|------|--------|--------|-----|
|------|--------|--------|-----|

Y:\2016\16-013\ENGINEERING\DWG\C-203 OLD POIPU ROAD STA. 21+00 TO STA. 32+00.dwg: December 4, 2018



| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| KAUAI | HAW. | STP-5010(002) | 2018 | XX | XX |

TRUE NORTH
SCALE: 1"=40'

FOR CONTINUATION, SEE SHT. C-202
MATCH LINE STA. 21+00

MATCH LINE STA. 32+00
FOR CONTINUATION, SEE SHT. C-204

PROVIDE PARALLEL
PARKING STARTING AT
STA. 23+90

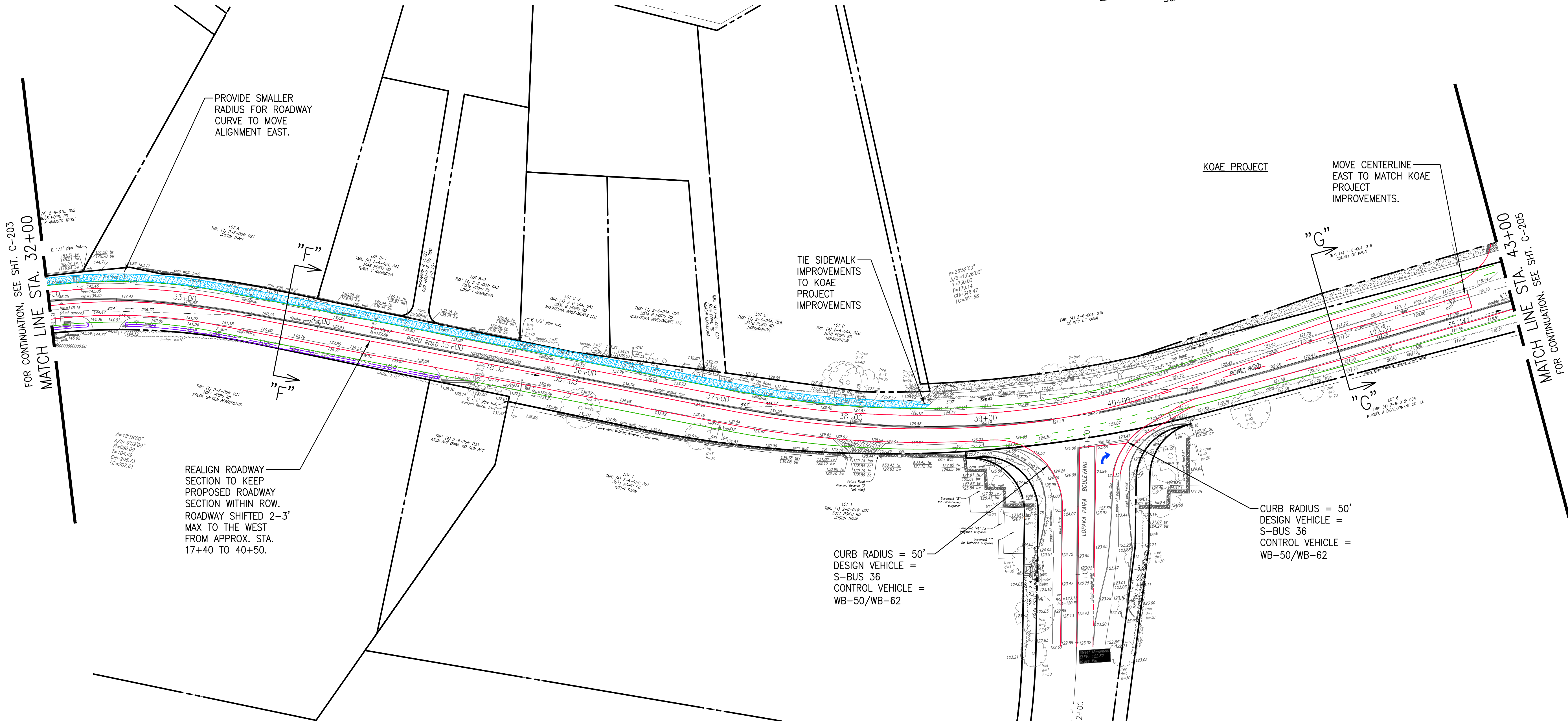
PROVIDE PARALLEL
PARKING STARTING AT
STA. 20+60

PROVIDE CROSSWALK AT
THE END OF THE
SIDEWALK ON THE WEST
SIDE OF POIPU ROAD

REALIGN ROADWAY
SECTION TO KEEP
PROPOSED ROADWAY
SECTION WITHIN ROW.
ROADWAY SHIFTED 2-3'
MAX TO THE WEST
FROM APPROX. STA.
17+40 TO 40+50.

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| KAUAI | HAW. | STP-5010(002) | 2018 | XX | XX |

TRUE NORTH
SCALE: 1"=40'



SECTION F-F SUMMARY:

- 5.0' - SIDEWALK
- 0.5' - CURB
- 5.0' - DEDICATED BIKE LANE
- 10.0' - TRAVEL WAY
- 10.0' - TRAVEL WAY
- 5.0' - DEDICATED BIKE LANE
- VARIES - DRAINAGE SWALE

SECTION G-G SUMMARY:

- 6.0' - EXISTING SIDEWALK
- VARIES - LANDSCAPE
- 5.0' - DEDICATED BIKE LANE
- 10.0' - TRAVEL WAY
- 10.0' - TRAVEL WAY
- 5.0' - DEDICATED BIKE LANE
- VARIES - DRAINAGE SWALE

NOTE:
EXISTING DRAIN INLETS WILL BE
REUSED OR RECONSTRUCTED
INTO CATCH BASINS




THIS WORK WAS PREPARED BY ME OR UNDER MY
SUPERVISION AND CONSTRUCTION OF THIS
PROJECT WILL BE UNDER MY OBSERVATION AS
DEFINED IN SECTION 116-1.1-2, HAWAII
ADMINISTRATIVE RULES, DEPARTMENT OF
COMMERCE AND CONSUMER AFFAIRS, STATE OF
HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS,
SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2018

DWG. NO. **C-204**
SHEET XX OF XX

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2-inches : Scale Accordingly)

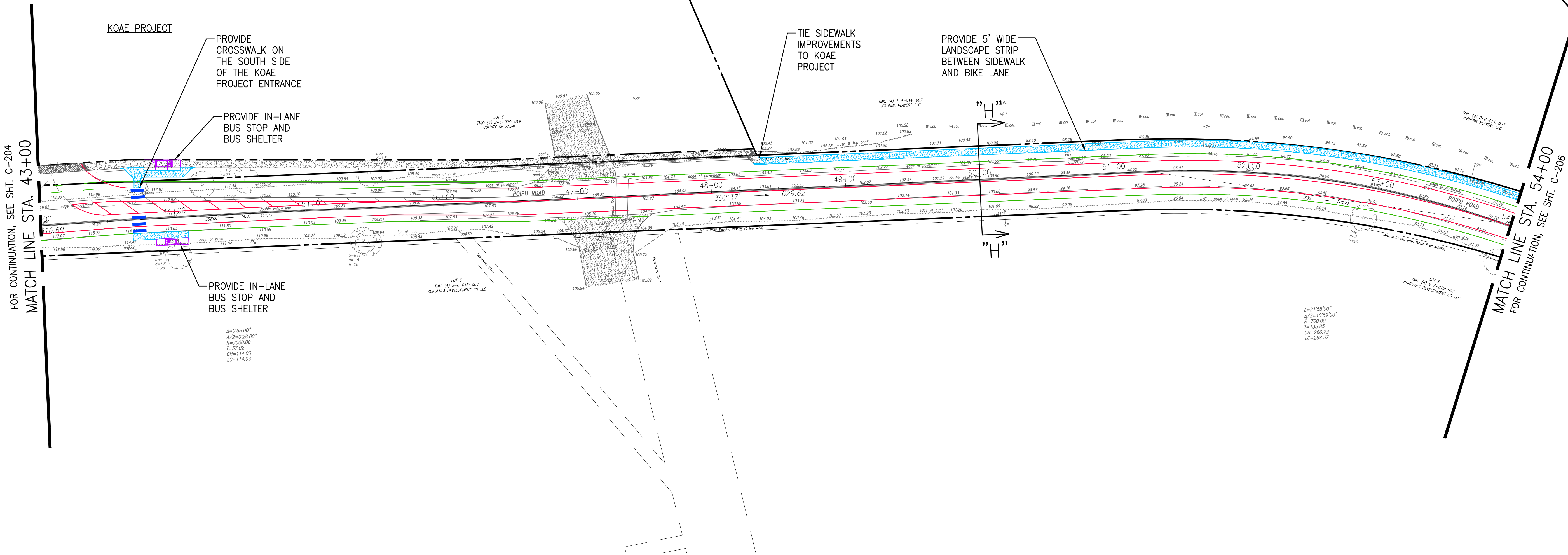
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| | | | | |
| REVISION | DATE | BRIEF | MADE BY | APPROVED |
| <div> Austin Tsutsumi & ASSOCIATES, INC. Engineers & Surveyors</div> | | | | |
| PO'IPU ROAD MULTIMODAL IMPROVEMENTS FEDERAL-AID PROJECT NO. STP-5010(2) PO'IPU, KOLOA, KAUAI, HAWAII | | | | |
| OLD POIPU ROAD STA. 32+00 TO STA. 43+00 | | | | |
| DESIGNED BY KU, KA | | DRAWN BY DO | CHECKED BY KU | |
| APPROVED | | SUBMITTED BY | | |
| DATE | | FIRM MEMBER | DATE | |

DATE: XXXXXXXXXXXXX

| FILE | POCKET | FOLDER | NO. |
|------|--------|--------|-----|
| | | | |

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| KAUAI | HAW. | STP-5010(002) | 2018 | XX | XX |

TRUE NORTH
SCALE: 1"=40'



FOR CONTINUATION, SEE SHT. C-204
MATCH LINE STA. 43+00

MATCH LINE STA. 54+00
FOR CONTINUATION, SEE SHT. C-206

SECTION H-H SUMMARY:

- 5.0' - SIDEWALK
- 5.0' - DRAINAGE SWALE
- 5.0' - DEDICATED BIKE LANE
- 10.0' - TRAVEL WAY
- 10.0' - TRAVEL WAY
- 5.0' - DEDICATED BIKE LANE
- VARIES - DRAINAGE SWALE

A=0°50'00"
Δ/2=10°59'00"
R=7000.00
T=57.02
CH=114.03
LC=114.03

A=21°58'00"
Δ/2=10°59'00"
R=700.00
T=135.85
CH=266.73
LC=266.37




THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 116-1.15-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2018

DWG. NO. **C-205**
SHEET **XX** OF **XX**

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2-inches : Scale Accordingly)

| | | | | |
|--|------|------------------------------|---------|----------------------|
| | | | | |
| REVISION | DATE | BRIEF | MADE BY | APPROVED |
| <div> Austin Tsutsumi & ASSOCIATES, INC. Engineers & Surveyors</div> | | | | |
| PO'IPU ROAD MULTIMODAL IMPROVEMENTS FEDERAL-AID PROJECT NO. STP-5010(2) PO'IPU, KOLOA, KAUAI, HAWAII | | | | |
| OLD POIPU ROAD STA. 43+00 TO STA. 54+00 | | | | |
| DESIGNED BY KU, KA | | DRAWN BY DO | | CHECKED BY KU |
| APPROVED | | SUBMITTED BY | | |
| _____ DATE _____ | | FIRM MEMBER _____ DATE _____ | | |

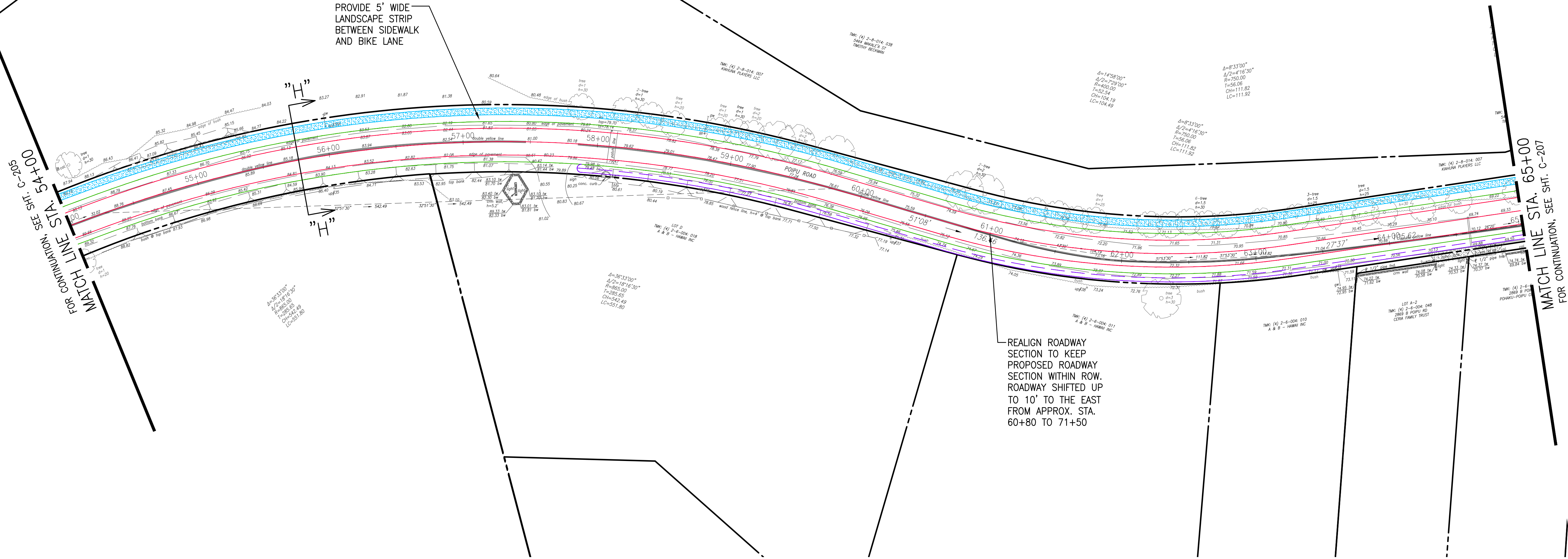
DATE: XXXXXXXXXXXXX

| FILE | POCKET | FOLDER | NO. |
|------|--------|--------|-----|
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Y:\2016\16-013\ENGINEERING\DWG\C-206 OLD POIPU ROAD STA. 54+00 TO STA. 65+00.dwg; December 4, 2018

JOB NO. XX-XXX

SECTION H-H SUMMARY:
5.0' - SIDEWALK
5.0' - DRAINAGE SWALE
5.0' - DEDICATED BIKE LANE
10.0' - TRAVEL WAY
10.0' - TRAVEL WAY
5.0' - DEDICATED BIKE LANE
VARIES - DRAINAGE SWALE



| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| KAUAI | HAW. | STP-5010(002) | 2018 | XX | XX |




THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 116-115-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2018

DWG. NO. **C-206**
SHEET **XX** OF **XX**

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2-inches : Scale Accordingly)

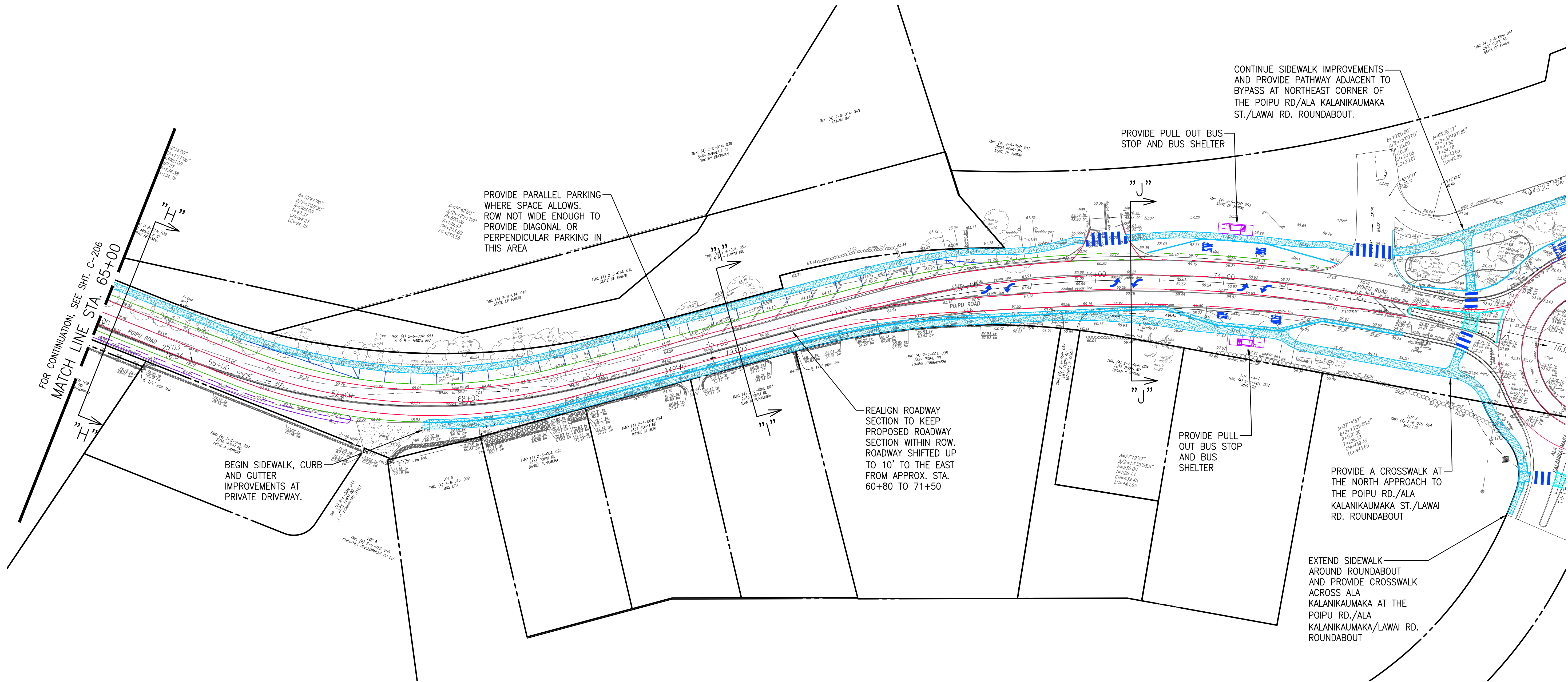
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|--|------|--------------------|---------|----------------------|
| | | | | |
| REVISION | DATE | BRIEF | MADE BY | APPROVED |
| <div> Austin Tsutsumi & ASSOCIATES, INC. Engineers & Surveyors</div> | | | | |
| PO'IPU ROAD MULTIMODAL IMPROVEMENTS FEDERAL-AID PROJECT NO. STP-5010(2) PO'IPU, KOLOA, KAUAI, HAWAII | | | | |
| OLD POIPU ROAD STA. 54+00 TO STA. 65+00 | | | | |
| DESIGNED BY KU, KA | | DRAWN BY DO | | CHECKED BY KU |
| APPROVED | | SUBMITTED BY | | |
| DATE | | FIRM MEMBER | | DATE |

DATE: XXXXXXXXXXXXX

| FILE | POCKET | FOLDER | NO. |
|------|--------|--------|-----|
| | | | |

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| KAUAI | HAW. | STP-5010(002) | 2018 | XX | XX |

TRUE NORTH
SCALE: 1"=40'



SECTION H-H SUMMARY:

- 5.0' - SIDEWALK
- 5.0' - DRAINAGE SWALE
- 5.0' - DEDICATED BIKE LANE
- 10.0' - TRAVEL WAY
- 10.0' - TRAVEL WAY
- 5.0' - DEDICATED BIKE LANE
- VARIES - DRAINAGE SWALE

SECTION I-I SUMMARY:

- 5.0' - SIDEWALK
- 8.5' - PARALLEL PARKING STALL
- 5.0' - DEDICATED BIKE LANE
- 10.0' - TRAVEL WAY
- 10.0' - TRAVEL WAY
- 3.0' - DEDICATED BIKE LANE
- 2.5' - MODIFIED CURB AND GUTTER
- 5.0' - SIDEWALK

SECTION J-J SUMMARY:

- 5.0' - SIDEWALK
- VARIES - DRAINAGE SWALE
- 5.0' - DEDICATED BIKE LANE
- 12.0' - TRAVEL WAY
- 11.0' - TRAVEL WAY
- 12.0' - TRAVEL WAY
- 3.0' - DEDICATED BIKE LANE
- 2.5' - MODIFIED CURB AND GUTTER
- VARIES - LANDSCAPING
- 5.0' - SIDEWALK



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 116-115-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2018

DWG. NO. **C-207**
SHEET XX OF XX

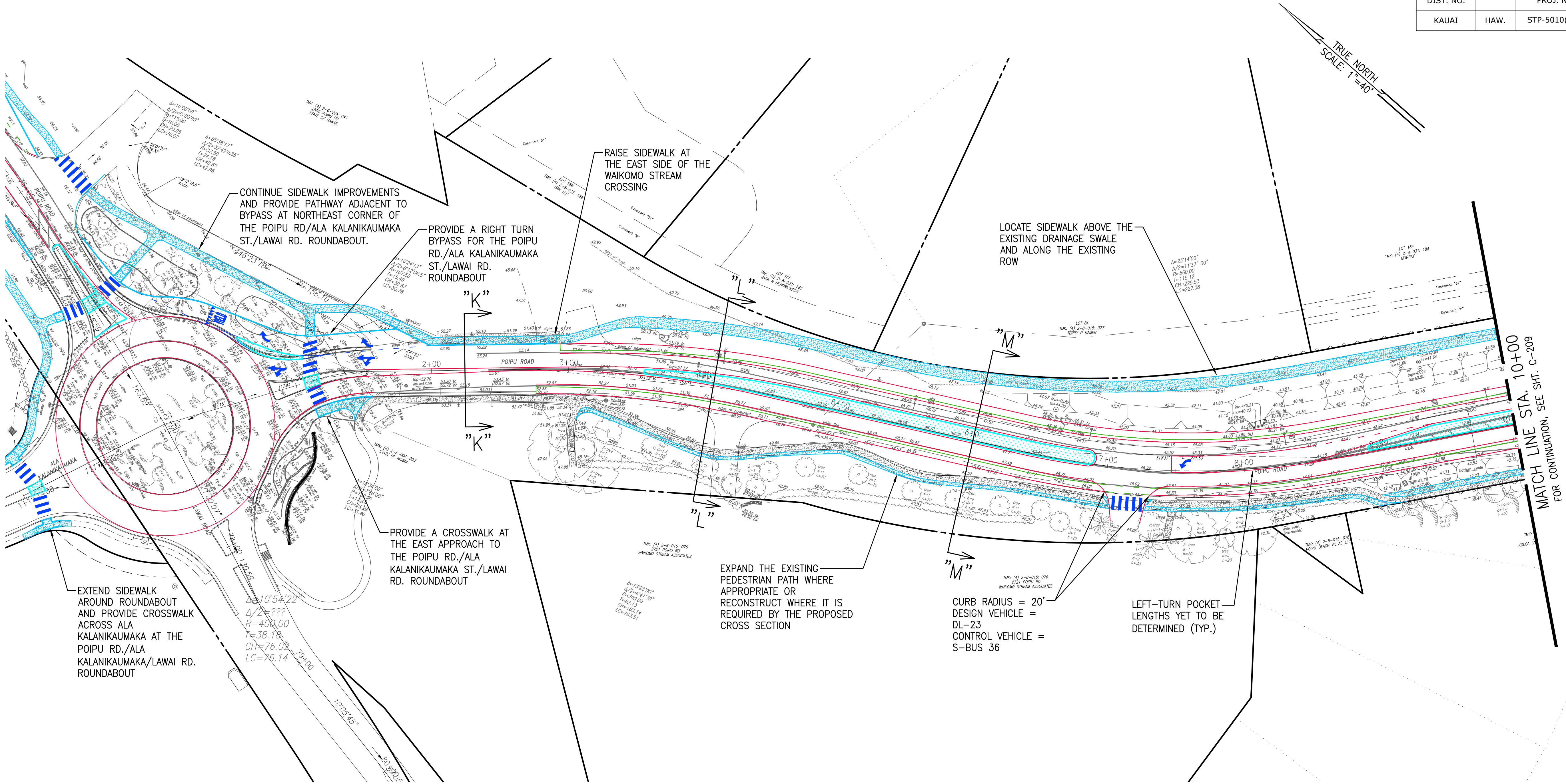
0 1 2
LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2-INCHES : Scale Accordingly)

| REVISION | DATE | BRIEF | MADE BY | APPROVED |
|--|--------------|----------------|-------------|----------|
| Austin Tsutsumi & ASSOCIATES, INC. Engineers & Surveyors | | | | |
| PO'IPU ROAD MULTIMODAL IMPROVEMENTS FEDERAL-AID PROJECT NO. STP-5010(2) PO'IPU, KOLOA, KAUAI, HAWAII | | | | |
| OLD POIPU ROAD STA. 65+00 TO END | | | | |
| DESIGNED BY: KU, KA | DRAWN BY: DO | CHECKED BY: KU | APPROVED | |
| SUBMITTED BY | | DATE | FIRM MEMBER | DATE |

DATE: XXXXXXXXXXXXX

| FILE | POCKET | FOLDER | NO. |
|------|--------|--------|-----|
| | | | |

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| KAUAI | HAW. | STP-5010(002) | 2018 | XX | XX |



SECTION K-K SUMMARY:

- 6.0'± - SIDEWALK
- 0'-5.0' - DEDICATED BIKE LANE (VARIES)
- 2.0' - BUFFER
- 10.0' - TRAVEL WAY
- 4.5' - STRIPED MEDIAN
- 10.0' - TRAVEL WAY
- 0.5' - CURB
- 10.0'± - COMBINED BIKE AND PED. PATH

SECTION L-L SUMMARY:

- 8.0' - MULTI-USE PATH
- 12' - SWALE AND LANDSCAPING VARIES - LANDSCAPING
- 5.0' - DEDICATED BIKE LANE
- 2.0' - BUFFER
- 10.0' - TRAVEL WAY
- VARIES - MEDIAN (VARIES 2.0' TO 10.0' RAISED)
- 10.0' - TRAVEL WAY
- VARIES - BUFFER
- 5.0' - DEDICATED BIKE LANE
- 6.0' - DRAINAGE SWALE
- VARIES - TREE BUFFER
- 8.0' - MULTI-USE PATH

SECTION M-M SUMMARY:

- 8.0' - MULTI-USE PATH
- 12' - SWALE AND LANDSCAPING
- 5.0' - DEDICATED BIKE LANE
- 2.0' - BUFFER
- 10.0' - TRAVEL WAY
- 12.0' - MEDIAN (10' WIDE RAISED)
- 10.0' - TRAVEL WAY
- 2.0' - BUFFER
- 5.0' - DEDICATED BIKE LANE
- 12' - SWALE AND LANDSCAPING
- 8.0' - MULTI-USE PATH



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 16-1.1.5-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2018

DWG. NO. **C-208**
SHEET XX OF XX

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2-INCHES : Scale Accordingly)

| REVISION | DATE | BRIEF | MADE BY | APPROVED |
|--|------|--------------|---------|----------------|
| Austin Tsutsumi & Associates, Inc. Engineers & Surveyors PO'IPU ROAD MULTIMODAL IMPROVEMENTS FEDERAL-AID PROJECT NO. STP-5010(2) PO'IPU, KOLOA, KAUAI, HAWAII POIPU ROAD EAST STA. 0+00 TO STA. 10+00 | | | | |
| DESIGNED BY: KU, KA | | DRAWN BY: DO | | CHECKED BY: KU |
| APPROVED | | SUBMITTED BY | | |
| DATE | | FIRM MEMBER | | DATE |

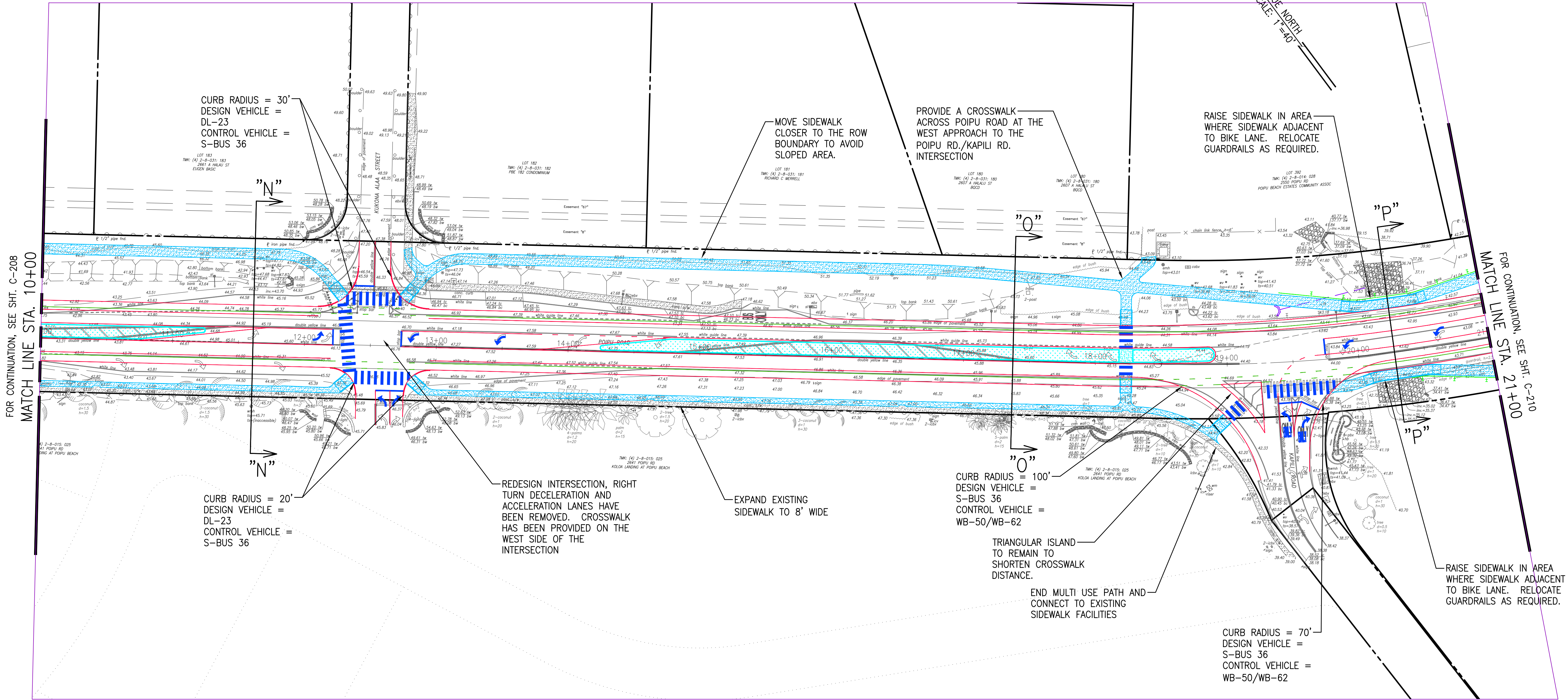
DATE: XXXXXXXXXXXXX

| FILE | POCKET | FOLDER | NO. |
|------|--------|--------|-----|
| | | | |

Y:\2016\16-013\ENGINEERING\DWG\C-209 POIPU ROAD EAST STA. 10+00 TO STA. 21+00.dwg: December 4, 2018

JOB NO. XX-XXX

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| KAUAI | HAW. | STP-5010(002) | 2018 | XX | XX |



SECTION N-N SUMMARY:

- 8.0' - MULTI-USE PATH
- 29.0' - TREE BUFFER
- 6.0' - DRAINAGE SWALE
- 10.0' - ACCELERATION LANE
- 5.0' - DEDICATED BIKE LANE
- 2.0' - BUFFER
- 10.0' - TRAVEL WAY
- 12.0' - LEFT TURN LANE
- 10.0' - TRAVEL WAY
- 2.0' - BUFFER
- 5.0' - DEDICATED BIKE LANE
- 10.0' - DECELERATION LANE
- 5.0' - TREE BUFFER
- 8.0' - MULTI-USE PATH

SECTION O-O SUMMARY:

- 8.0' - MULTI-USE PATH
- 25.8' - LANDSCAPING
- 6.0' - DRAINAGE SWALE
- 5.0' - DEDICATED BIKE LANE
- 2.0' - BUFFER
- 10.0' - TRAVEL WAY
- 12.0' - LEFT TURN LANE
- 10.0' - TRAVEL WAY
- 2.0' - BUFFER
- 5.0' - DEDICATED BIKE LANE
- 6.0' - DRAINAGE SWALE
- 9.6±' - LANDSCAPING
- 8.0' - MULTI-USE PATH

SECTION P-P SUMMARY:

- 8.0' - MULTI-USE PATH
- 5.0' - DEDICATED BIKE LANE
- 2.0' - BUFFER
- 10.0' - TRAVEL WAY
- 12.0' - LEFT TURN LANE
- 2.0' - BUFFER
- 5.0' - DEDICATED BIKE LANE
- 8.0' - MULTI-USE PATH



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 116-115-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2018

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2-INCHES : Scale Accordingly)

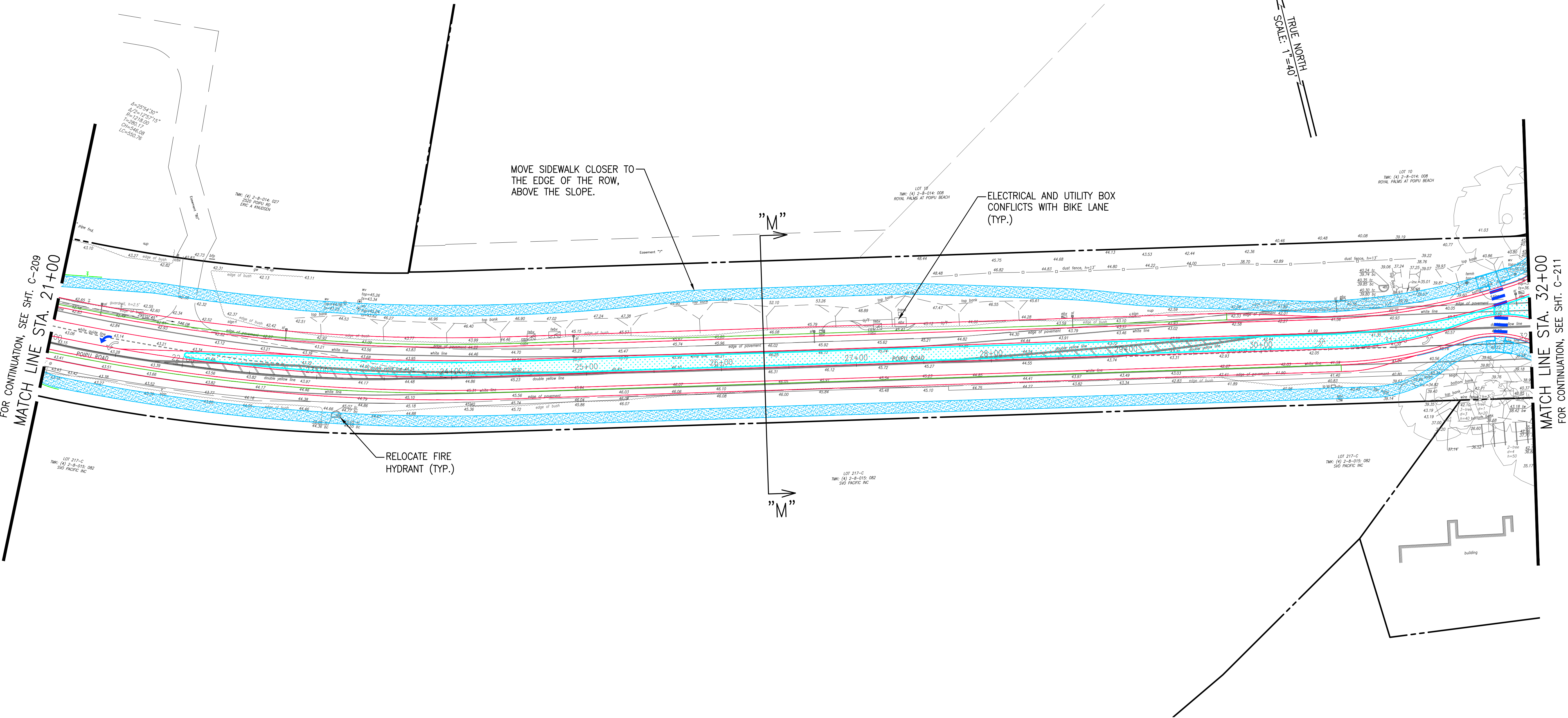
DWG. NO. **C-209**
SHEET XX OF XX

| REVISION | DATE | BRIEF | MADE BY | APPROVED |
|--|--------------|----------------|-------------|----------|
| Austin Tsutsumi & ASSOCIATES, INC. Engineers & Surveyors | | | | |
| PO'IPU ROAD MULTIMODAL IMPROVEMENTS FEDERAL-AID PROJECT NO. STP-5010(2) PO'IPU, KOLOA, KAUAI, HAWAII | | | | |
| POIPU ROAD EAST STA. 10+00 TO STA. 21+00 | | | | |
| DESIGNED BY: KU, KA | DRAWN BY: DO | CHECKED BY: KU | APPROVED | |
| SUBMITTED BY | | DATE | FIRM MEMBER | DATE |

DATE: XXXXXXXXXXXXX

| FILE | POCKET | FOLDER | NO. |
|------|--------|--------|-----|
| | | | |

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| KAUAI | HAW. | STP-5010(002) | 2018 | XX | XX |



SECTION M-M SUMMARY:
8.0' - MULTI-USE PATH
VARIES - TREE BUFFER
6.0' - DRAINAGE SWALE
5.0' - DEDICATED BIKE LANE
2.0' - BUFFER
10.0' - TRAVEL WAY
12.0' - MEDIAN (10' WIDE RAISED)
10.0' - TRAVEL WAY
2.0' - BUFFER
5.0' - DEDICATED BIKE LANE
12.0' - SWALE AND LANDSCAPING
8.0' - MULTI-USE PATH




THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 116-1.15-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2018

DWG. NO. **C-210**
SHEET **XX** OF **XX**

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2-inches : Scale Accordingly)

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|--|------|---------------------|---------|-----------------------|
| | | | | |
| REVISION | DATE | BRIEF | MADE BY | APPROVED |
| <div> Austin Tsutsumi & ASSOCIATES, INC. Engineers & Surveyors</div> | | | | |
| PO'IPU ROAD MULTIMODAL IMPROVEMENTS FEDERAL-AID PROJECT NO. STP-5010(2) PO'IPU, KOLOA, KAUAI, HAWAII | | | | |
| POIPU ROAD EAST STA. 21+00 TO STA. 32+00 | | | | |
| DESIGNED BY: KU, KA | | DRAWN BY: DO | | CHECKED BY: KU |
| APPROVED | | SUBMITTED BY | | |
| DATE | | FIRM MEMBER | | DATE |

DATE: XXXXXXXXXXXXX

| FILE | POCKET | FOLDER | NO. |
|------|--------|--------|-----|
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